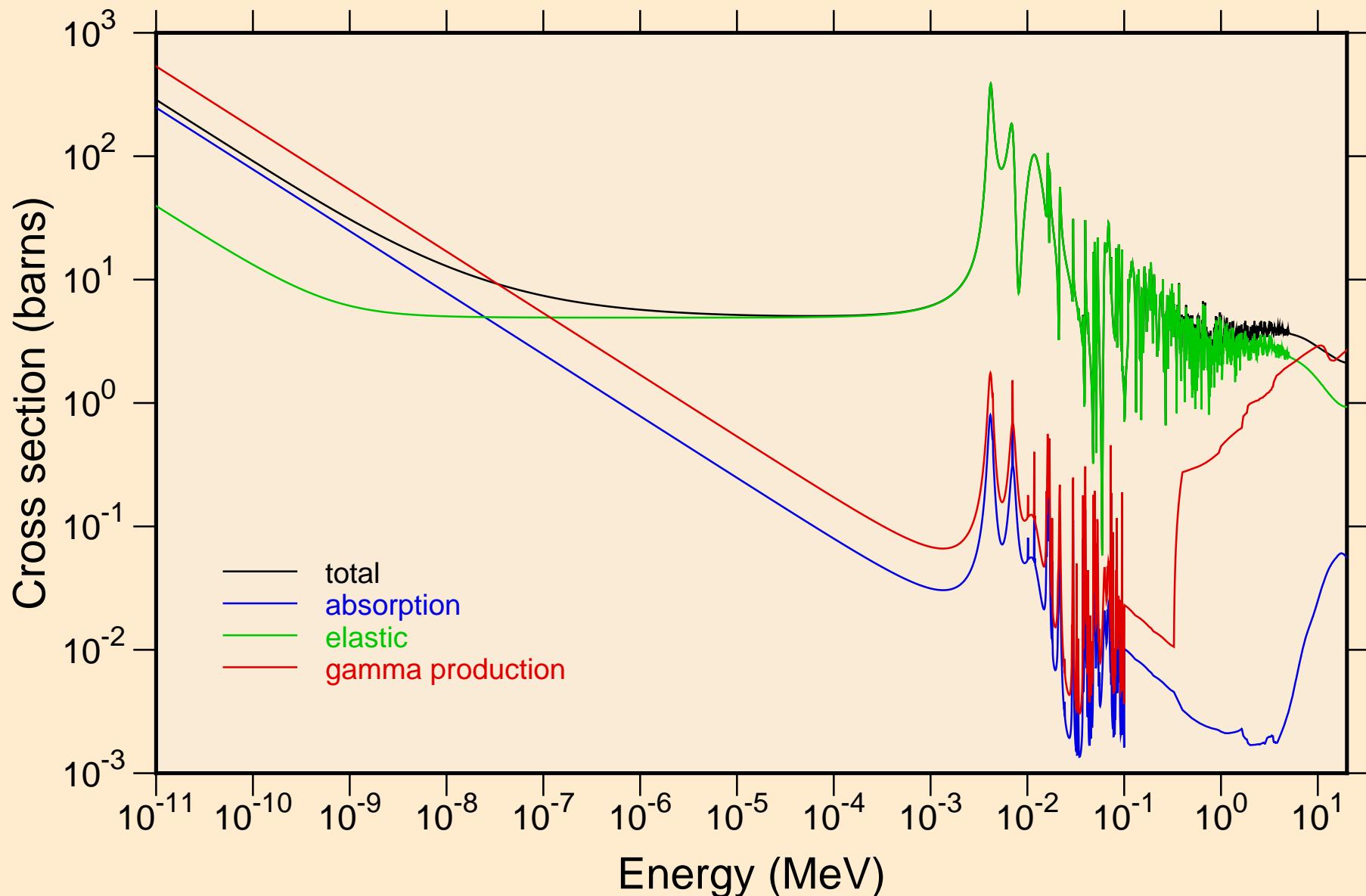
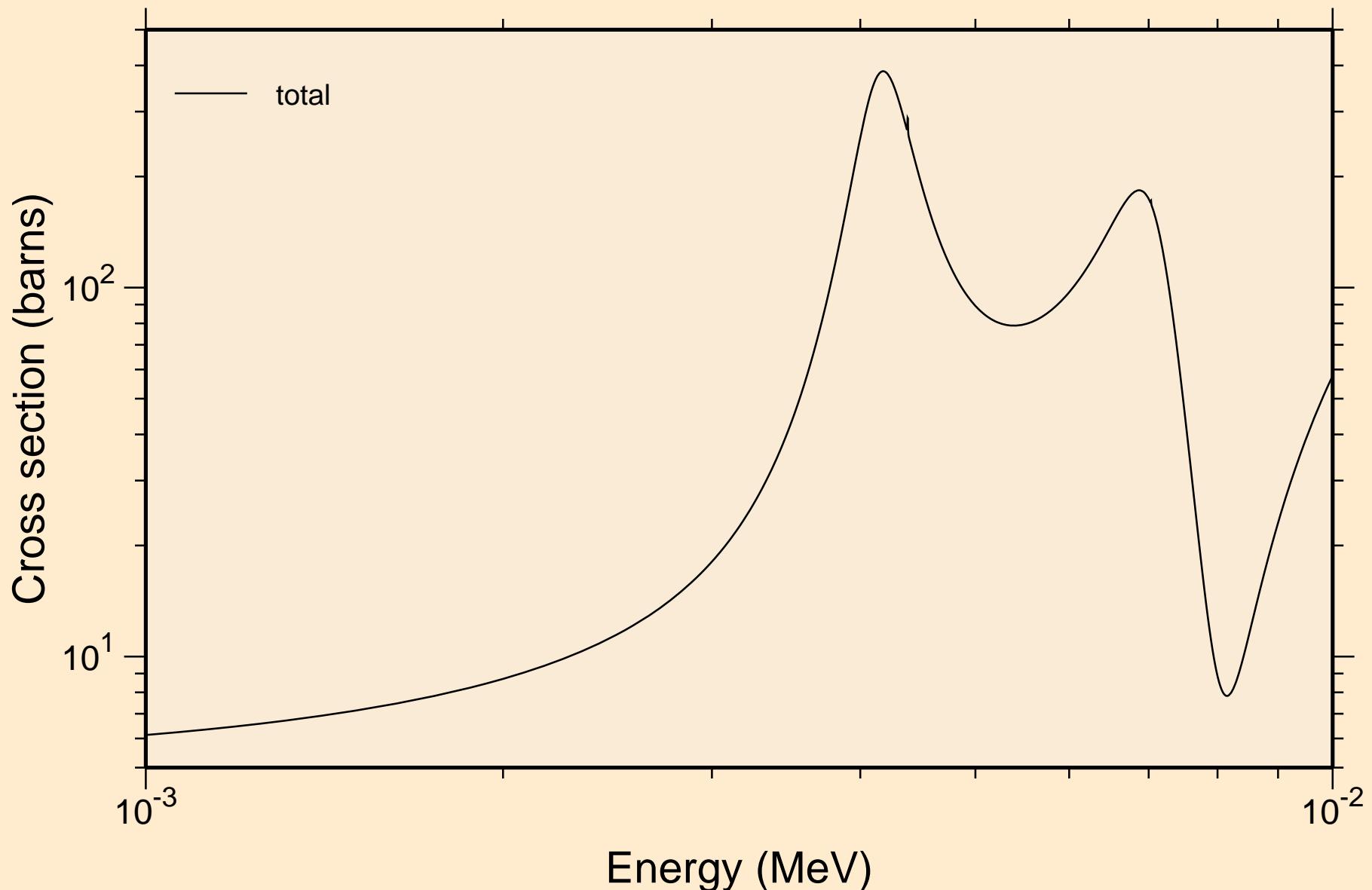


# JENDL-4 V-51

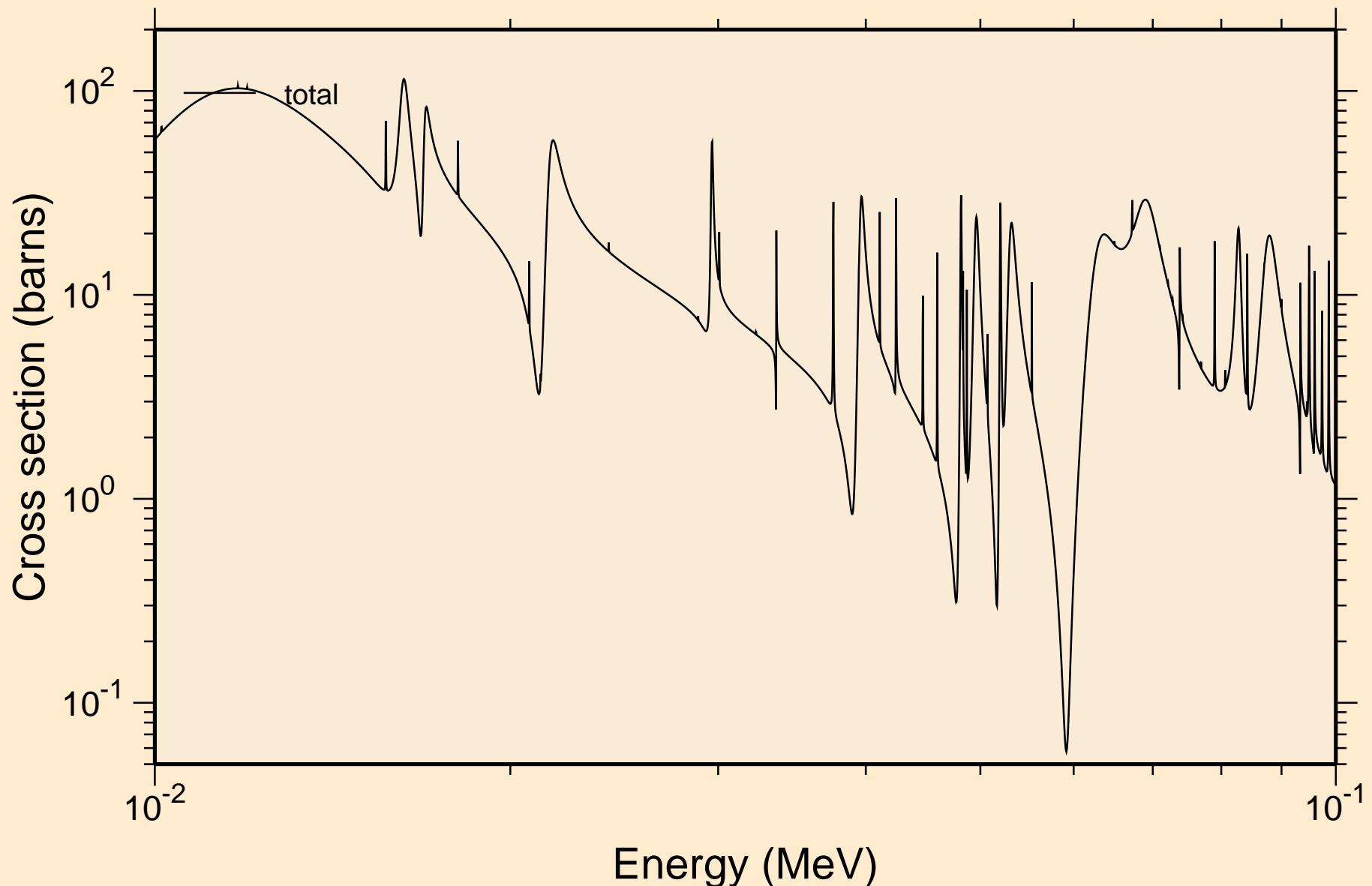
## Principal cross sections



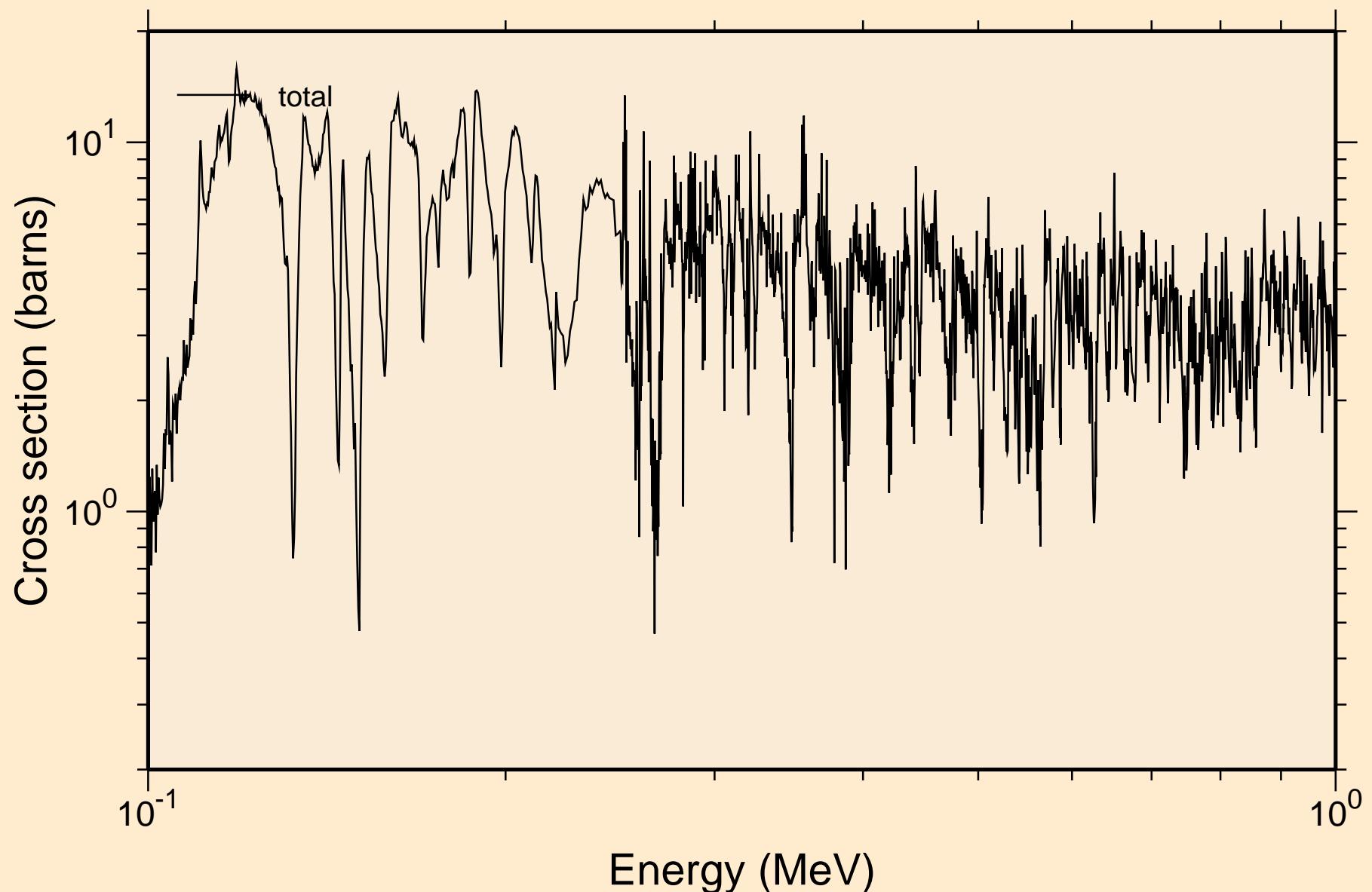
JENDL-4 V-51  
resonance total cross section



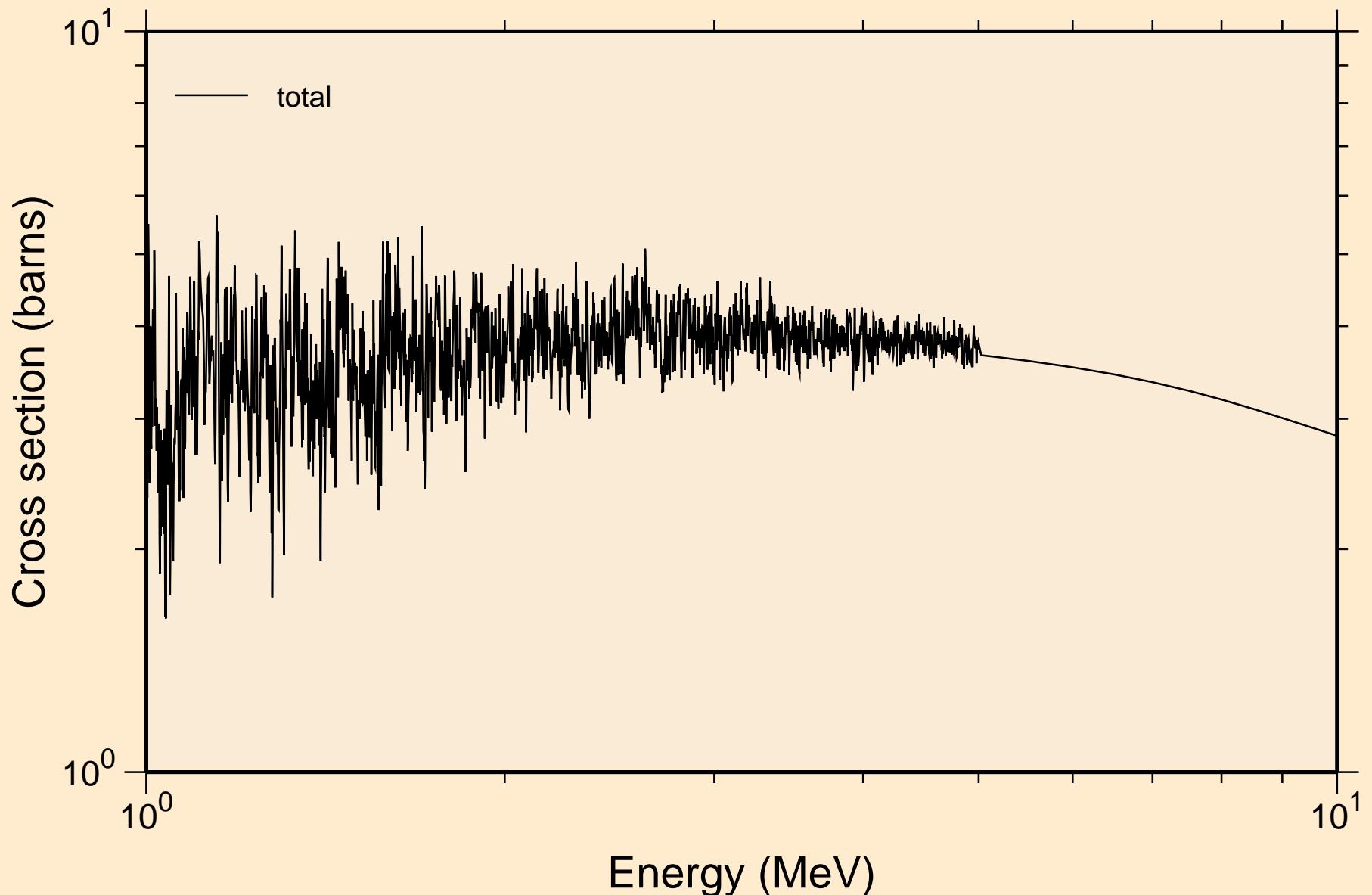
JENDL-4 V-51  
resonance total cross section



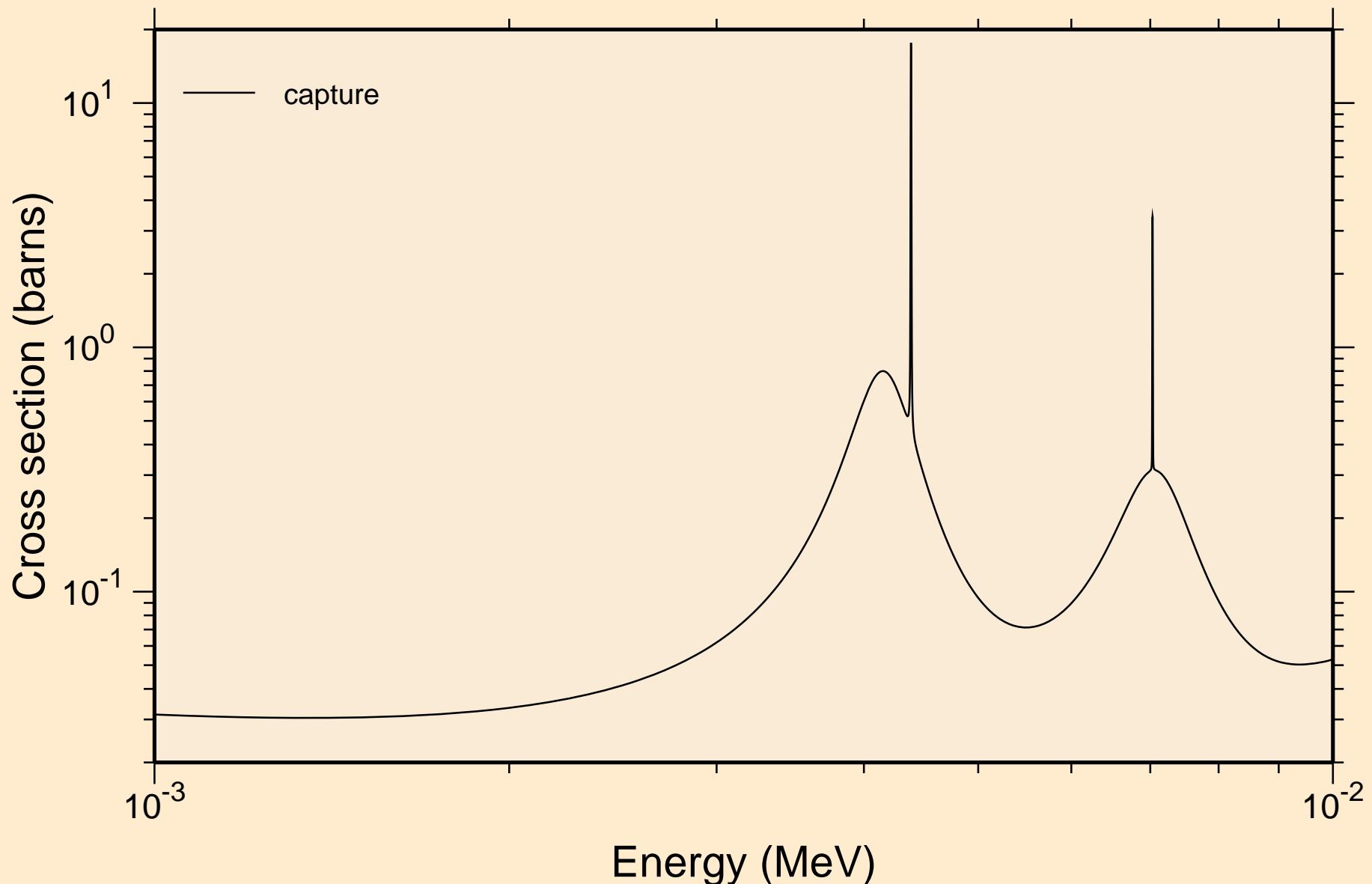
JENDL-4 V-51  
resonance total cross section



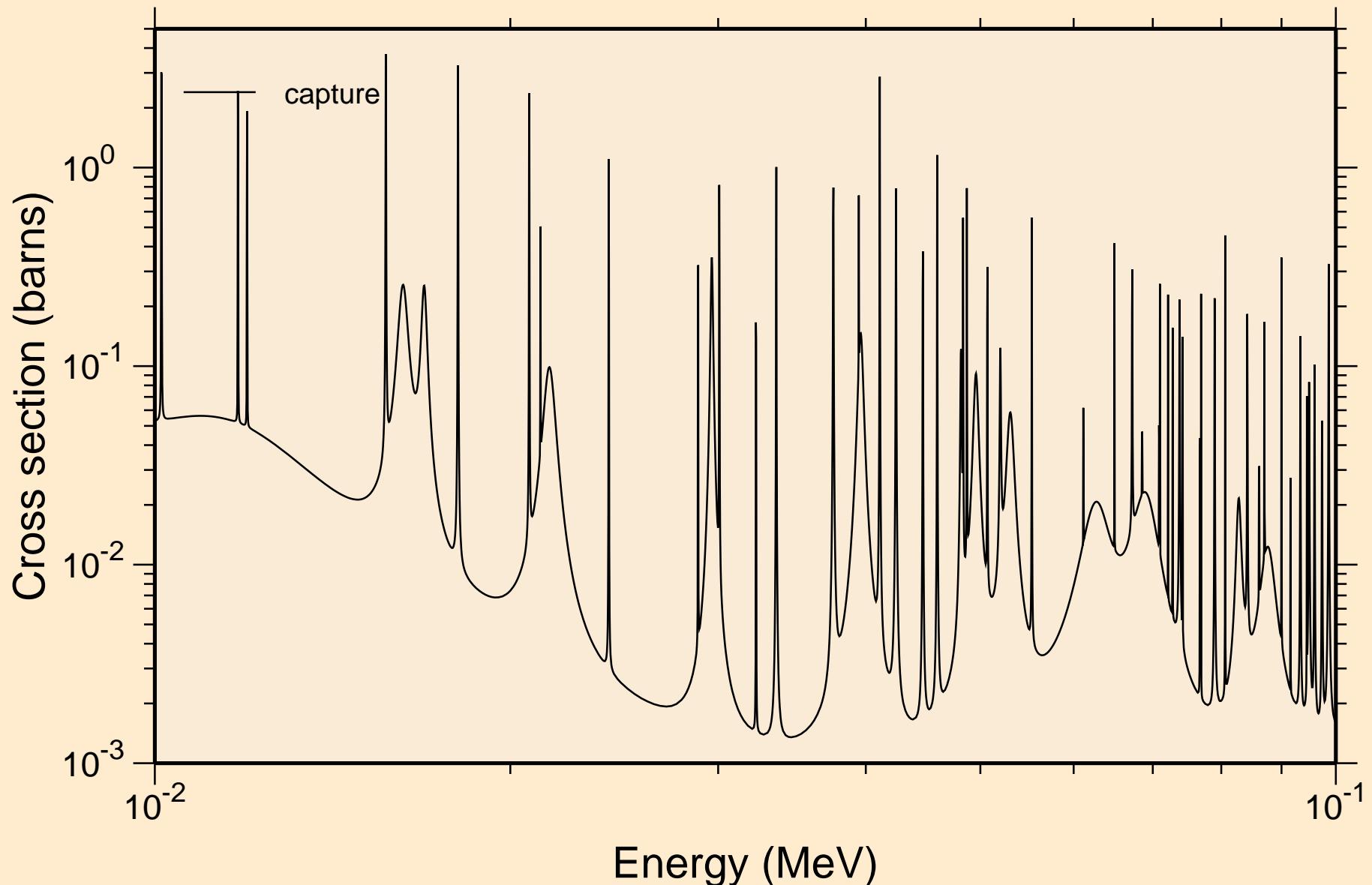
JENDL-4 V-51  
resonance total cross section



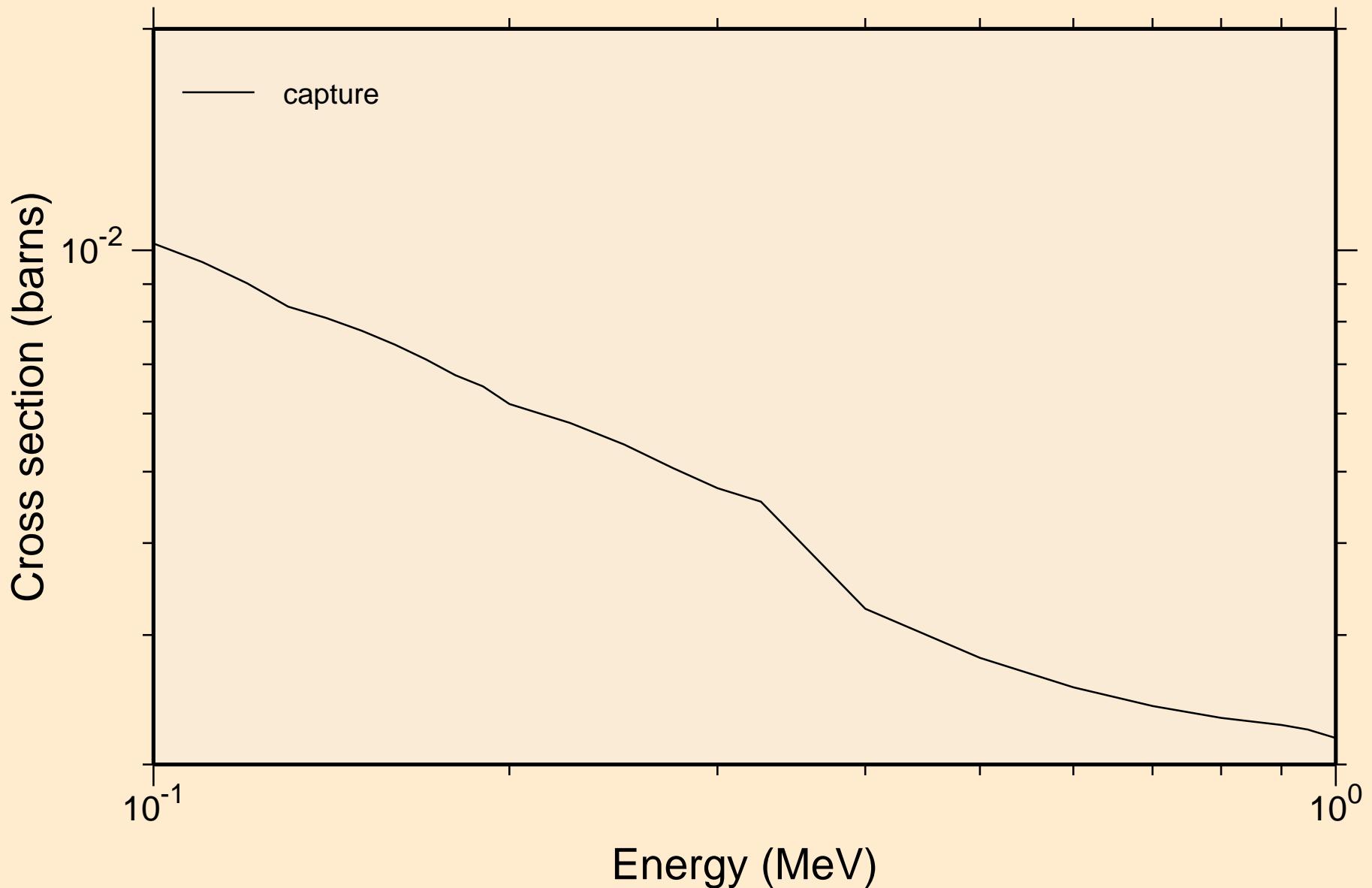
JENDL-4 V-51  
resonance absorption cross sections



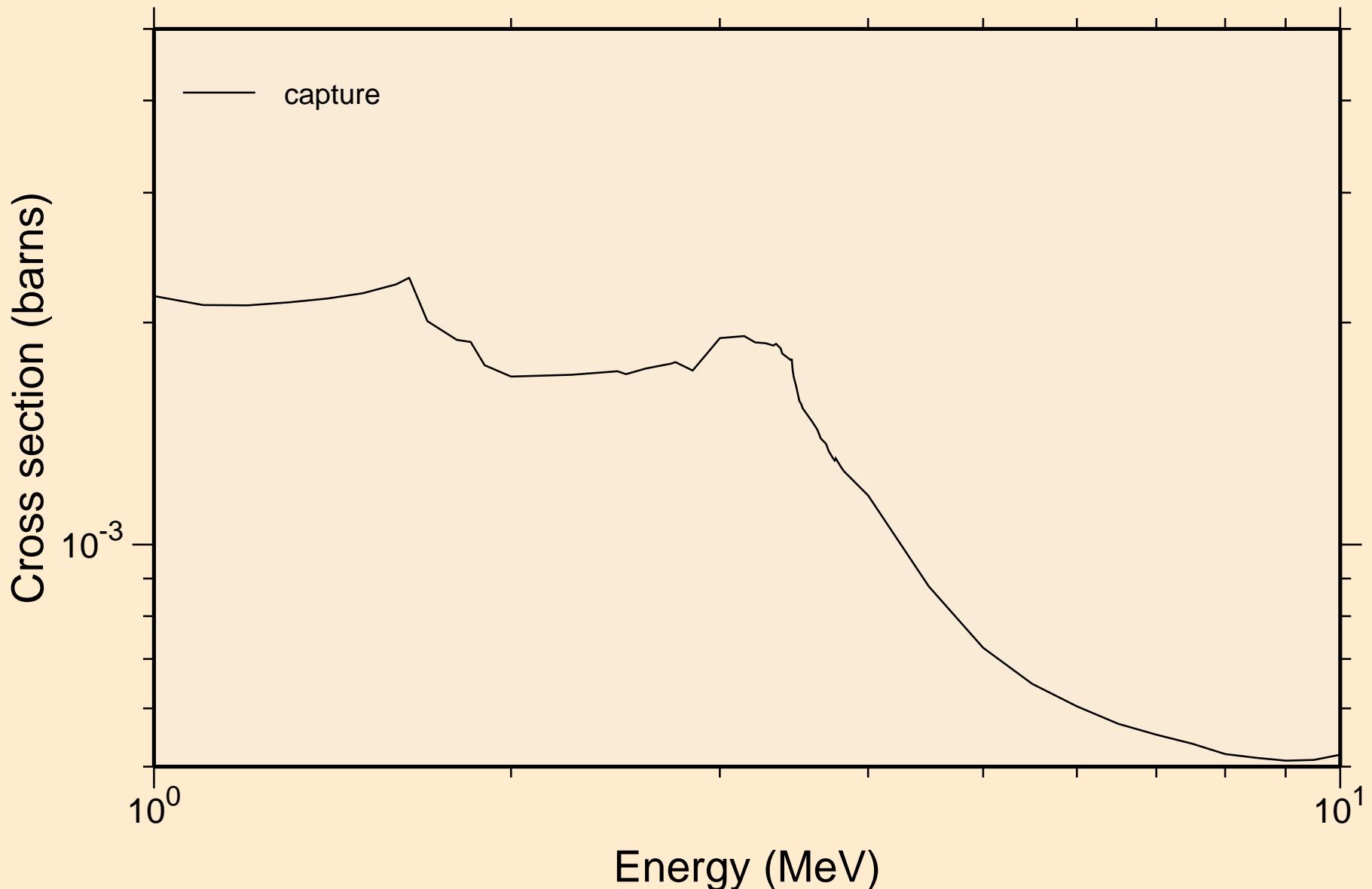
JENDL-4 V-51  
resonance absorption cross sections



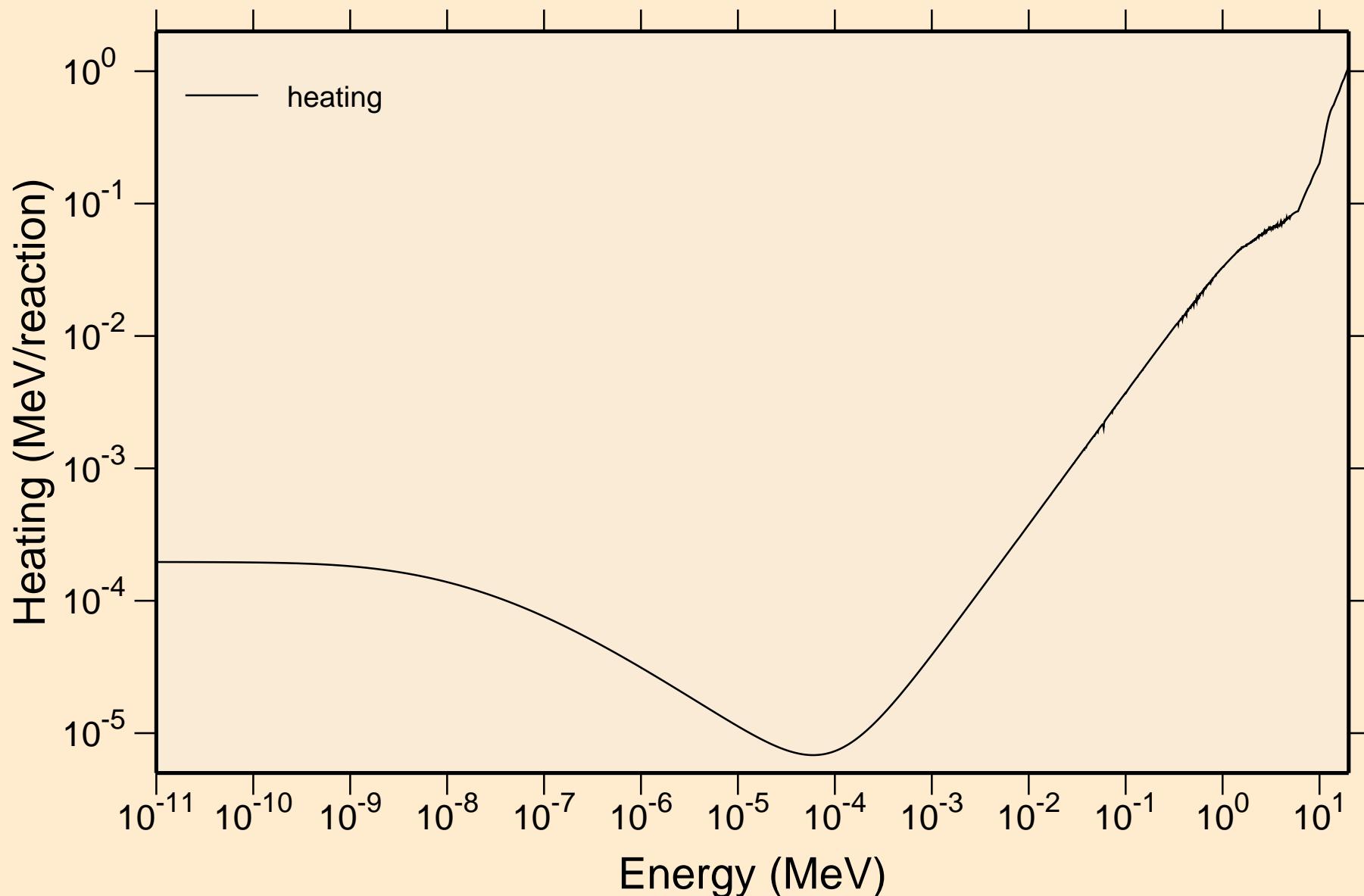
JENDL-4 V-51  
resonance absorption cross sections



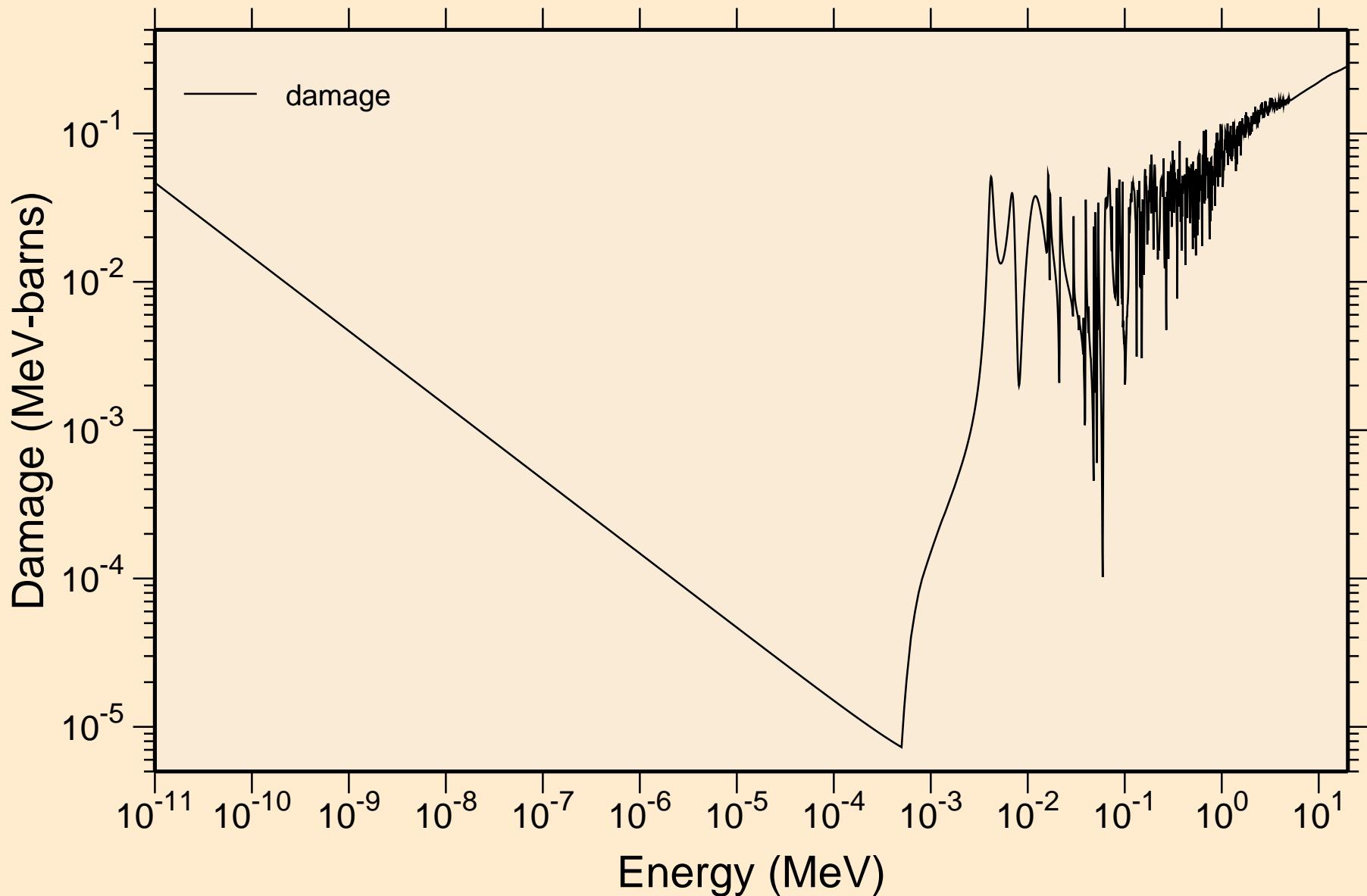
JENDL-4 V-51  
resonance absorption cross sections



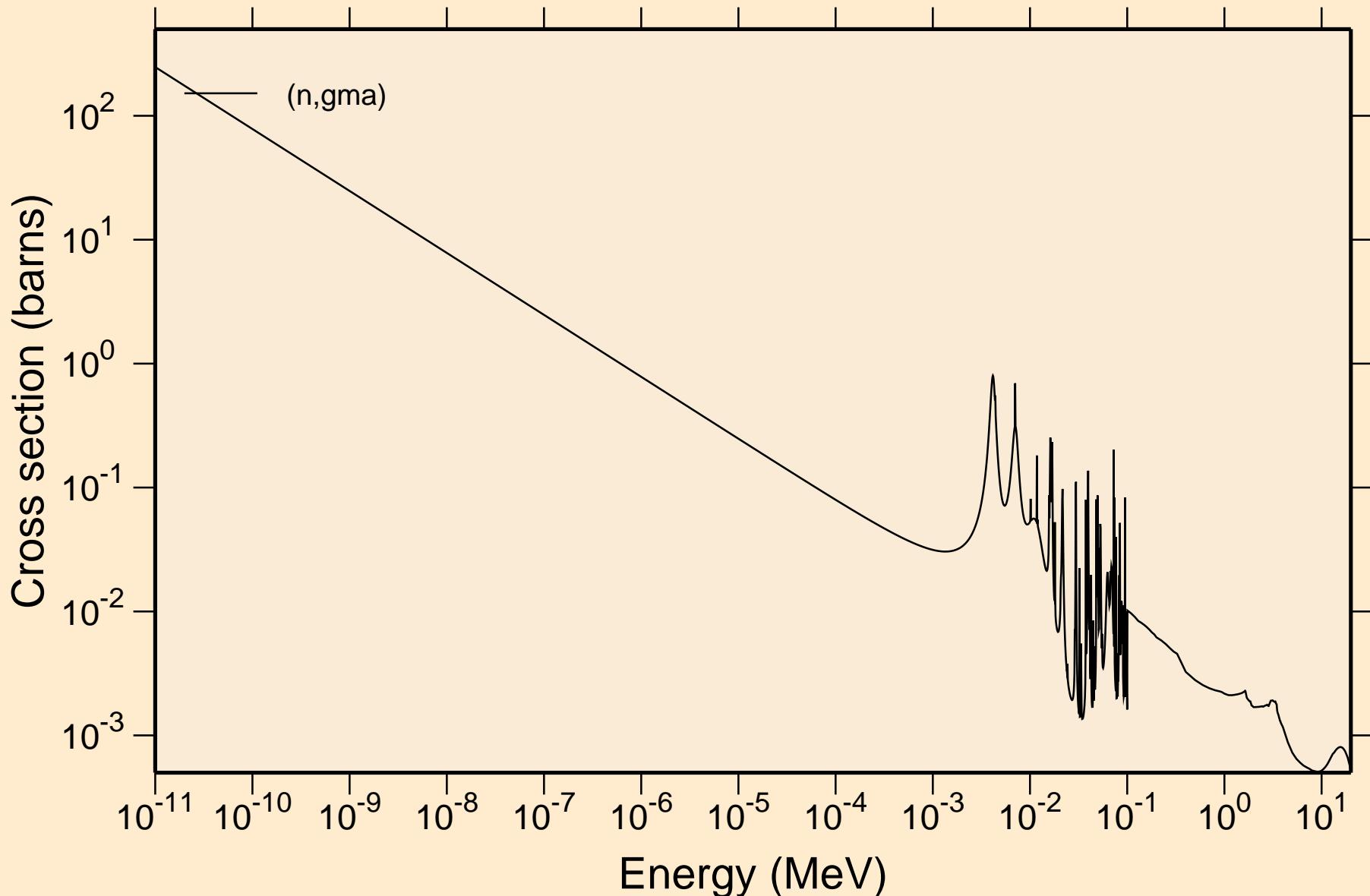
JENDL-4 V-51  
Heating



JENDL-4 V-51  
Damage

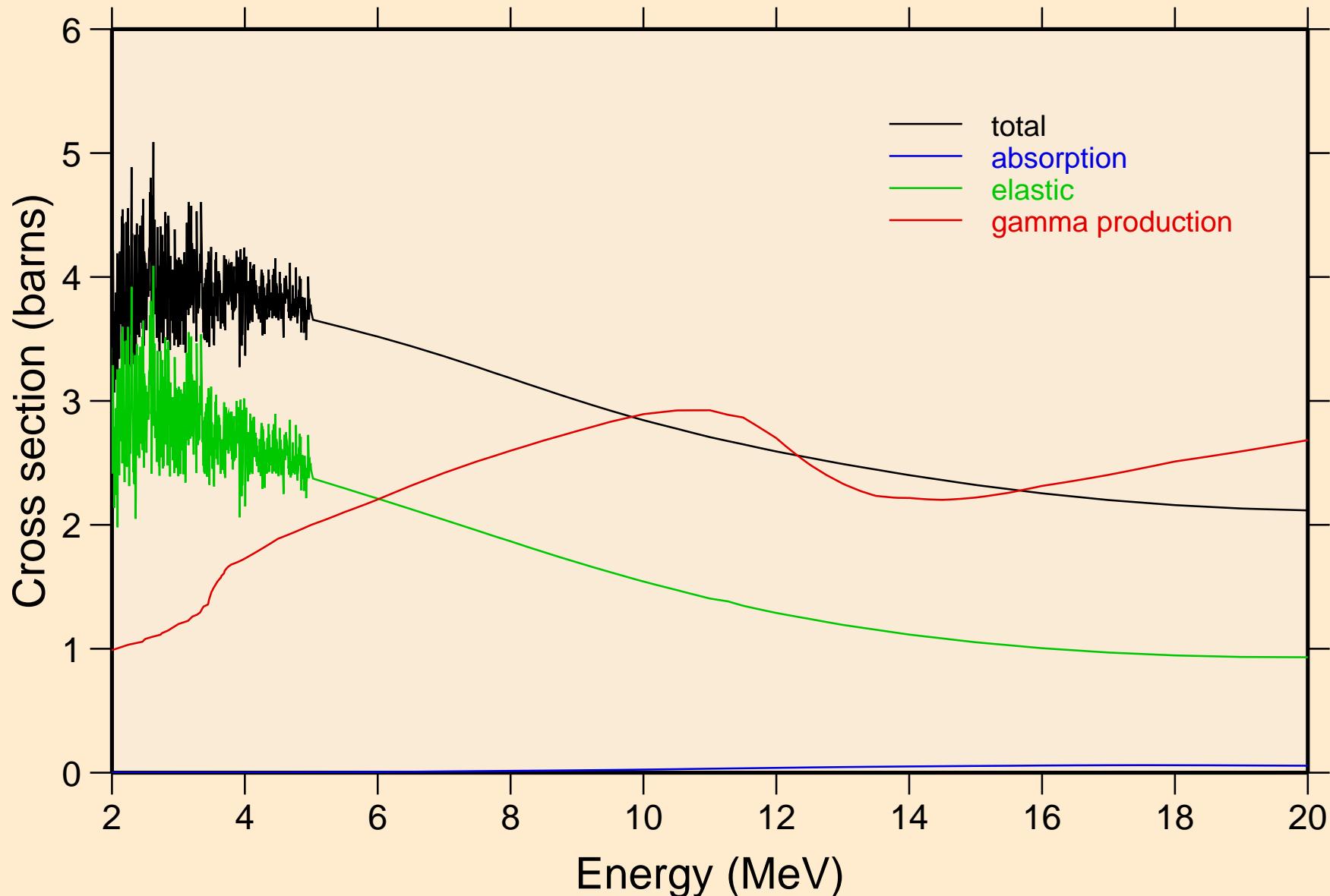


JENDL-4 V-51  
Non-threshold reactions

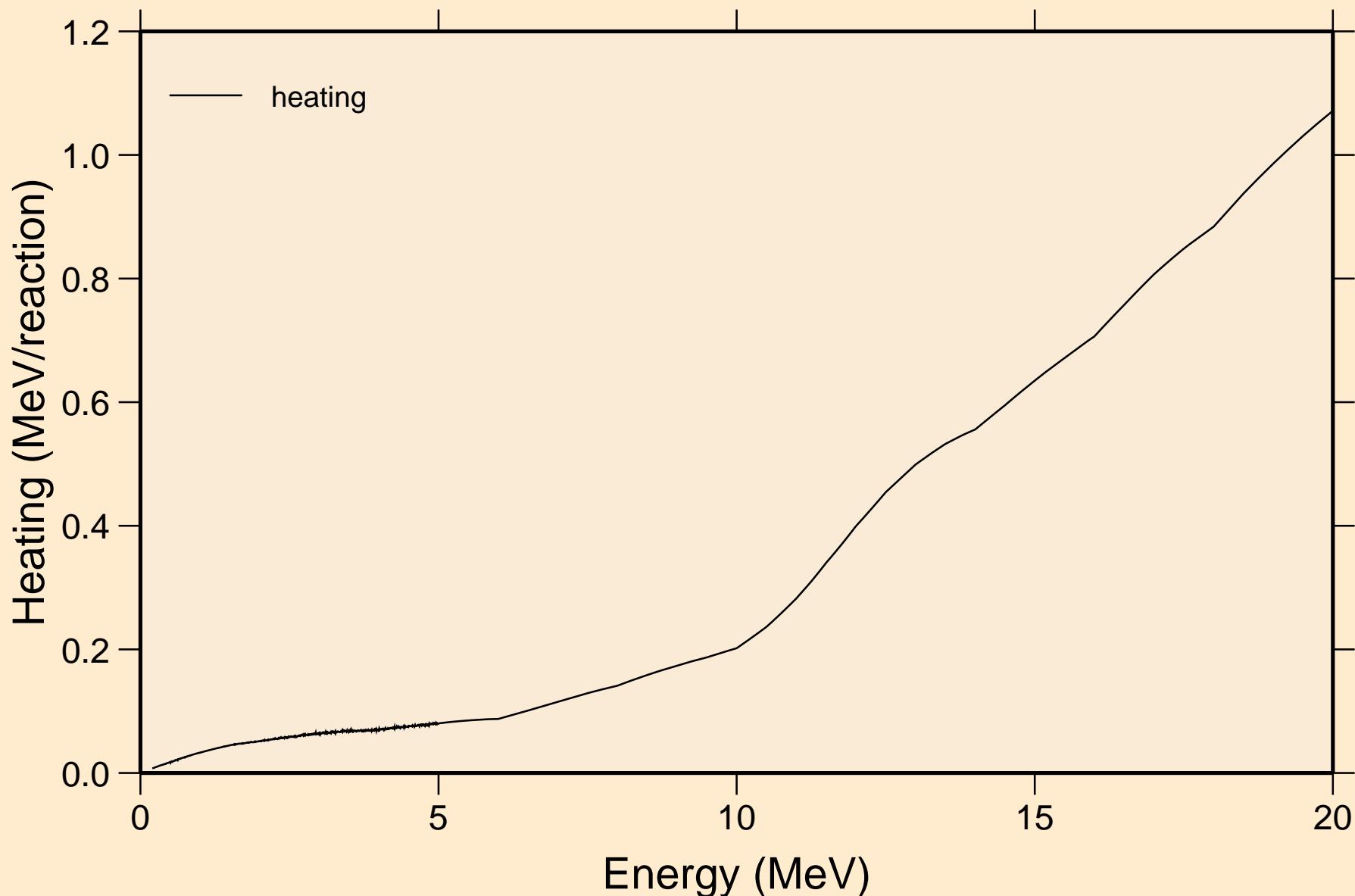


# JENDL-4 V-51

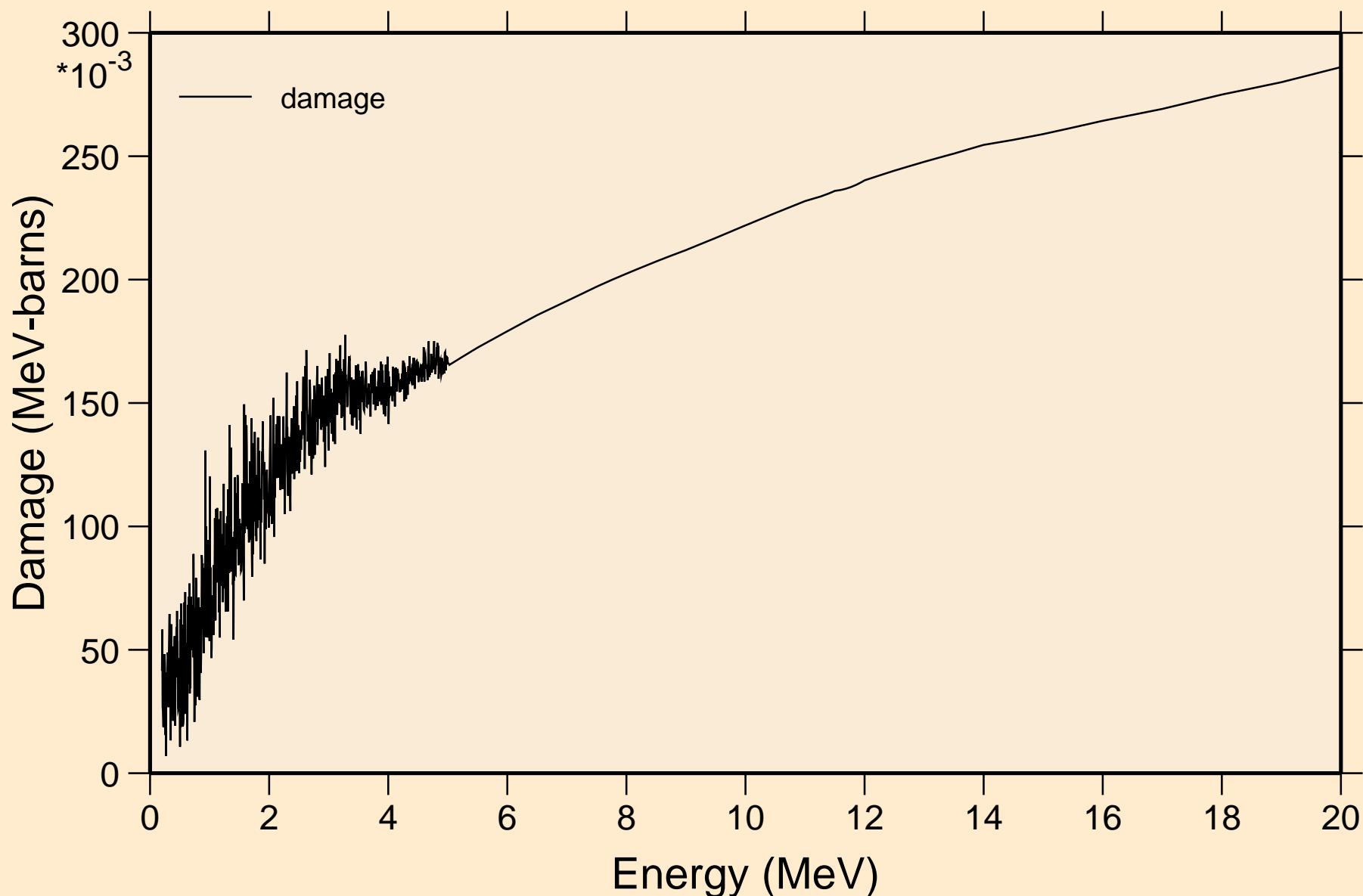
## Principal cross sections



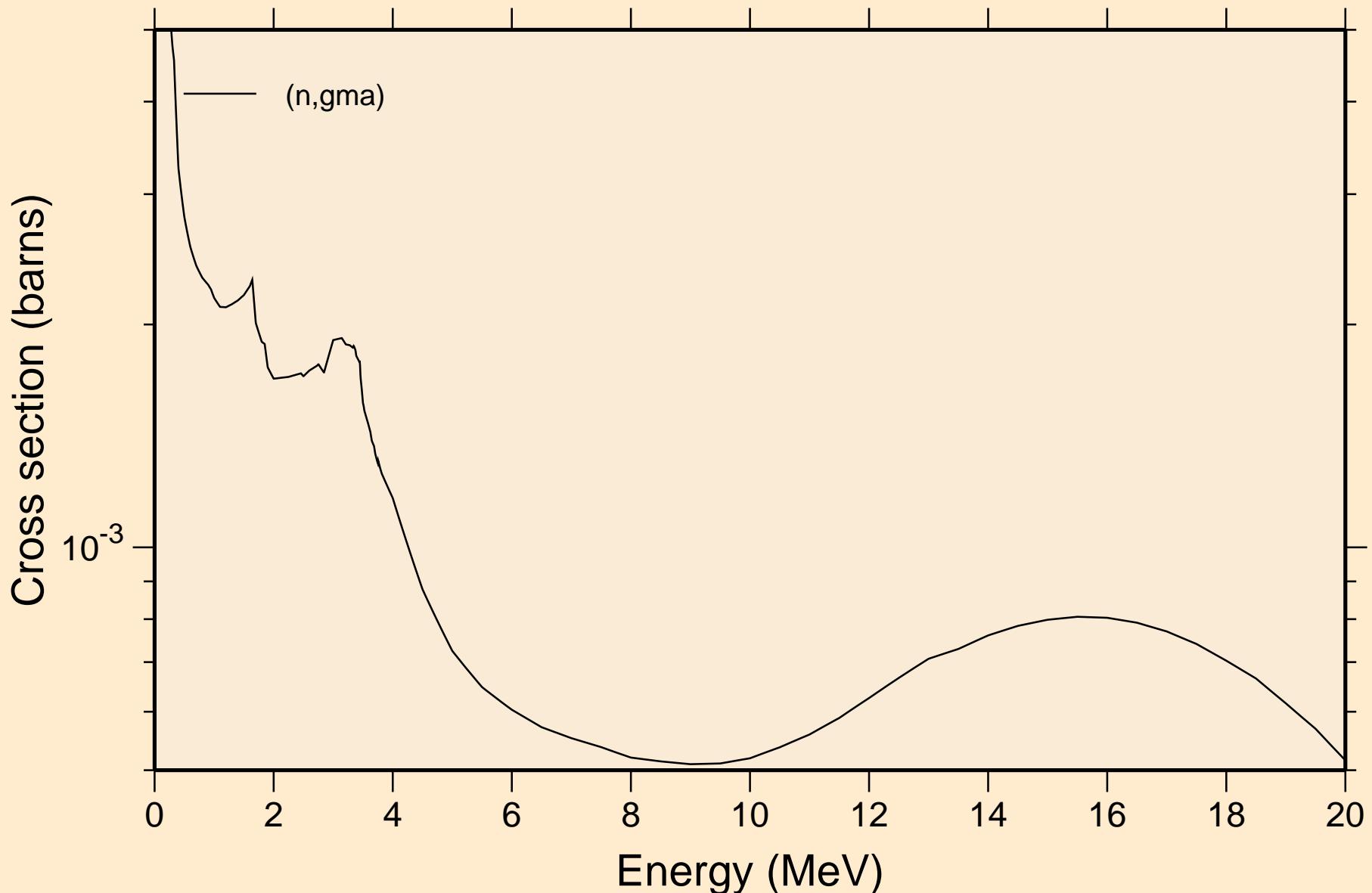
JENDL-4 V-51  
Heating



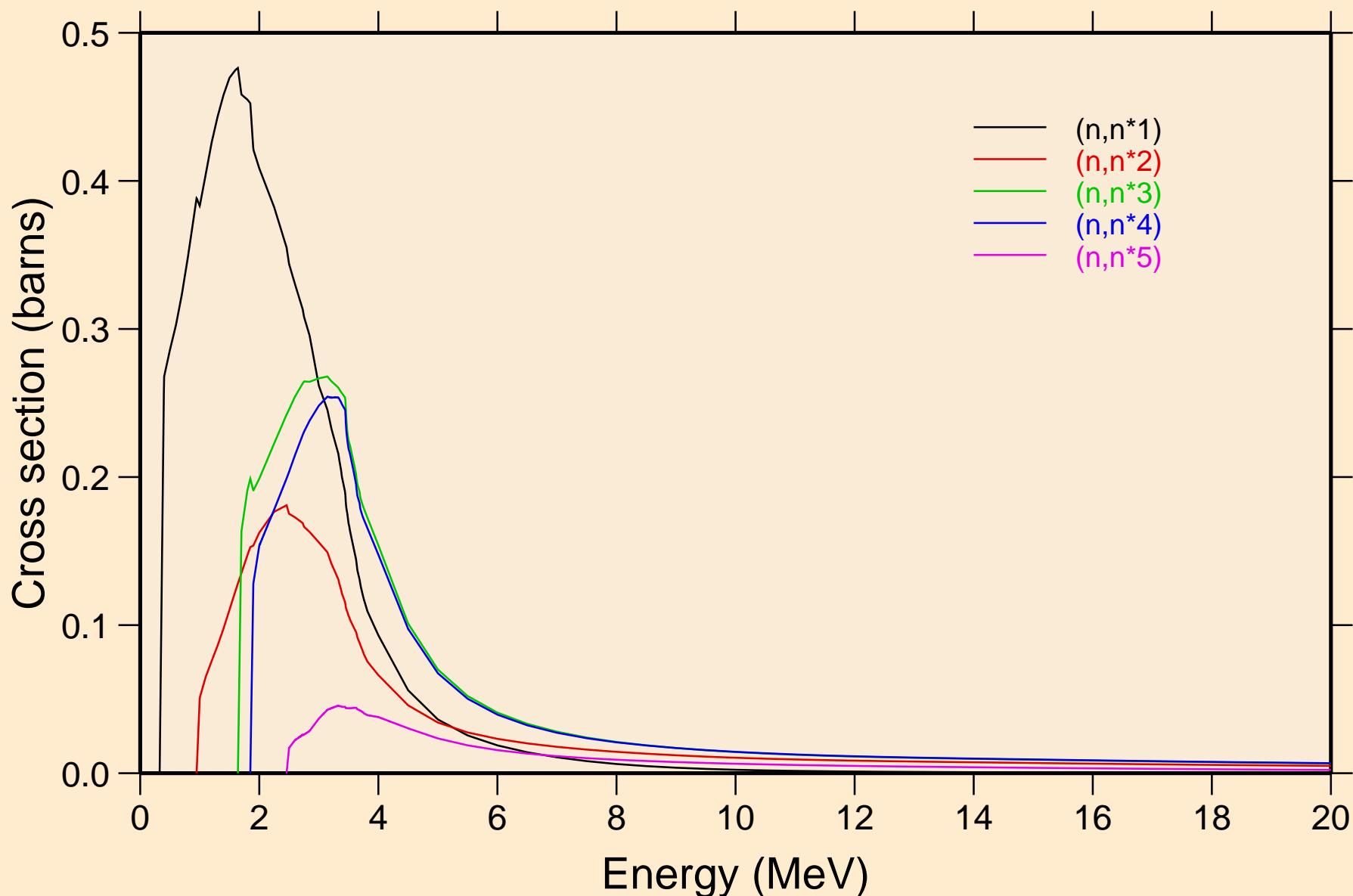
JENDL-4 V-51  
Damage



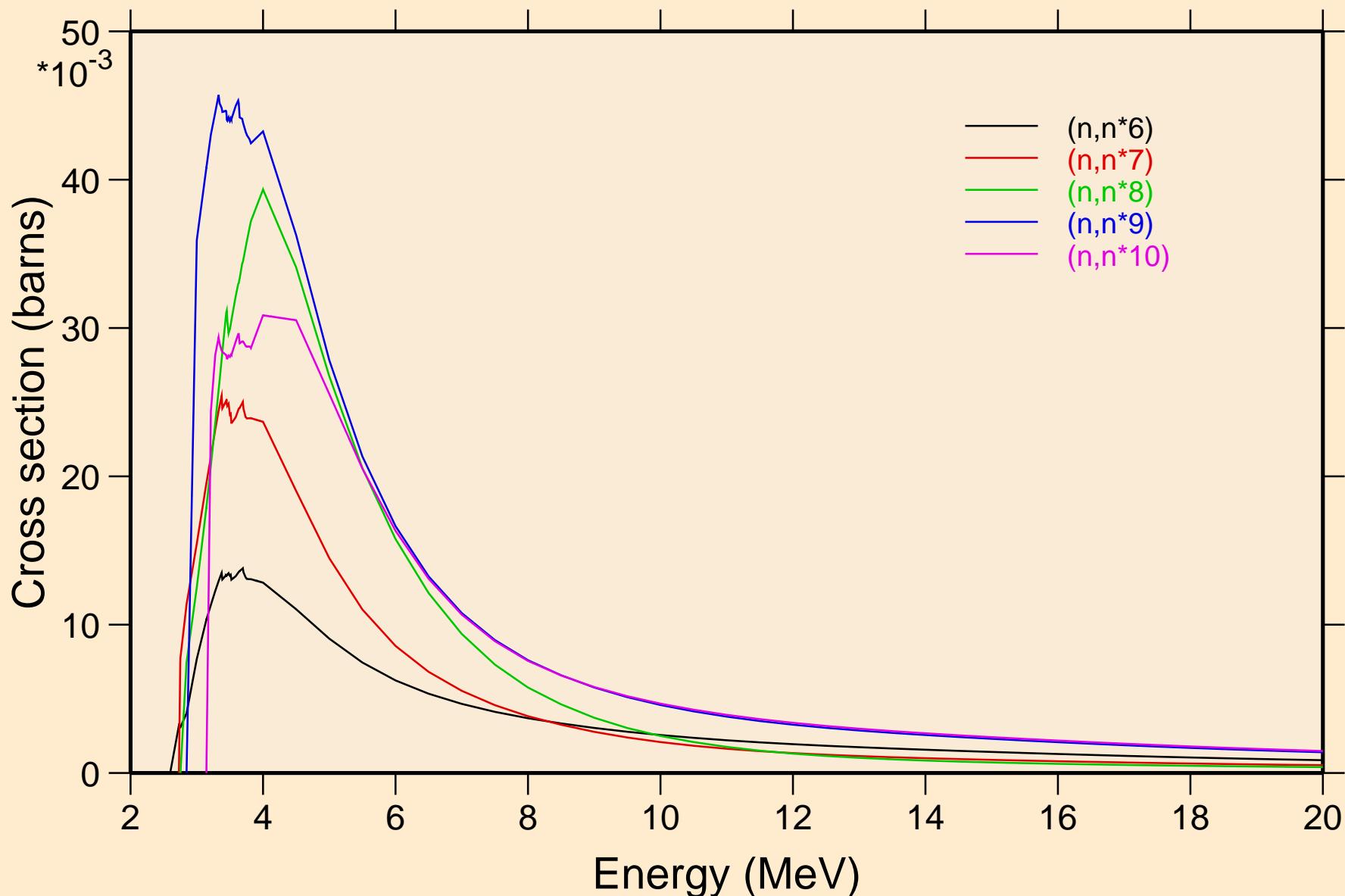
JENDL-4 V-51  
Non-threshold reactions



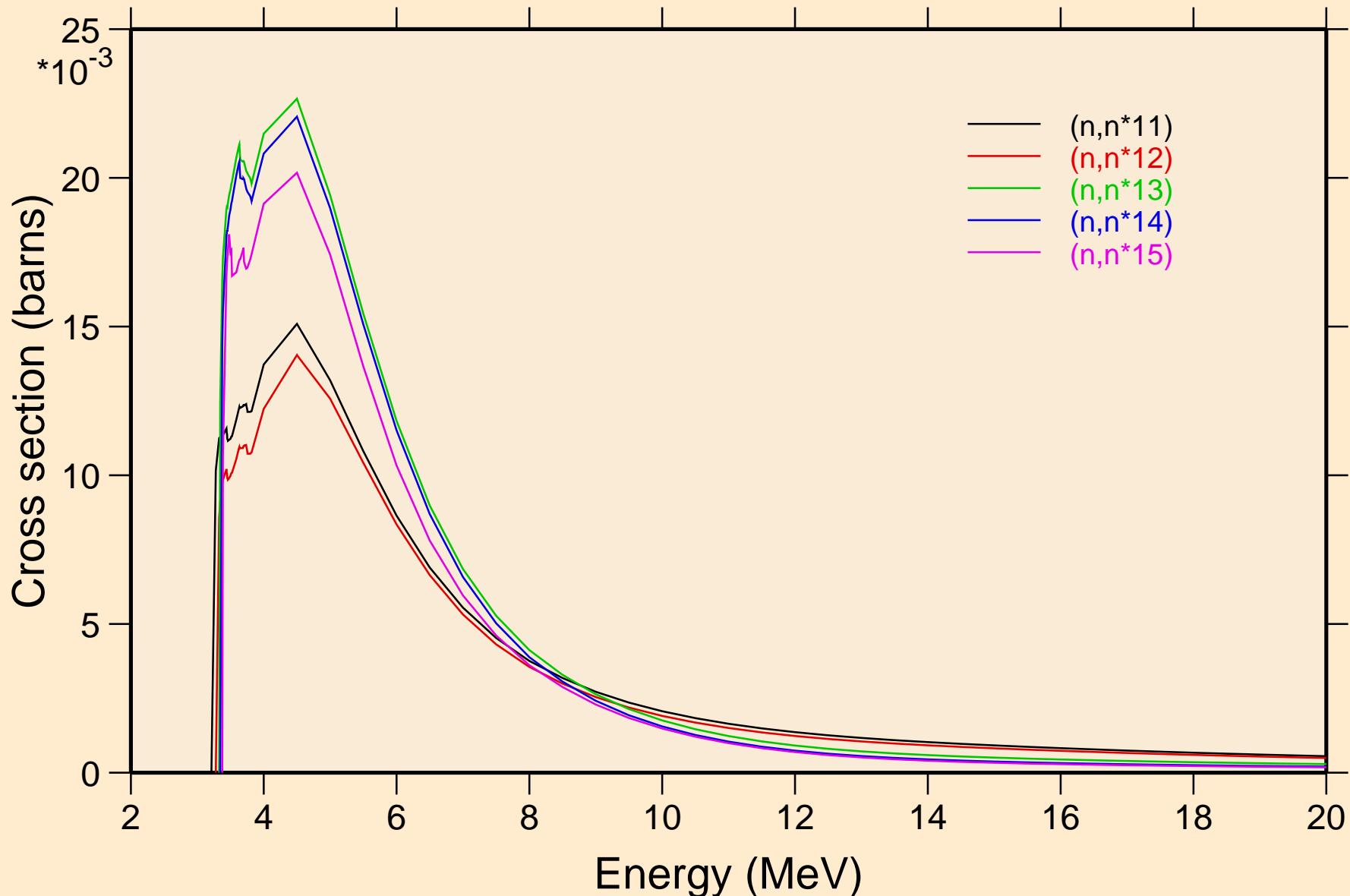
JENDL-4 V-51  
Inelastic levels



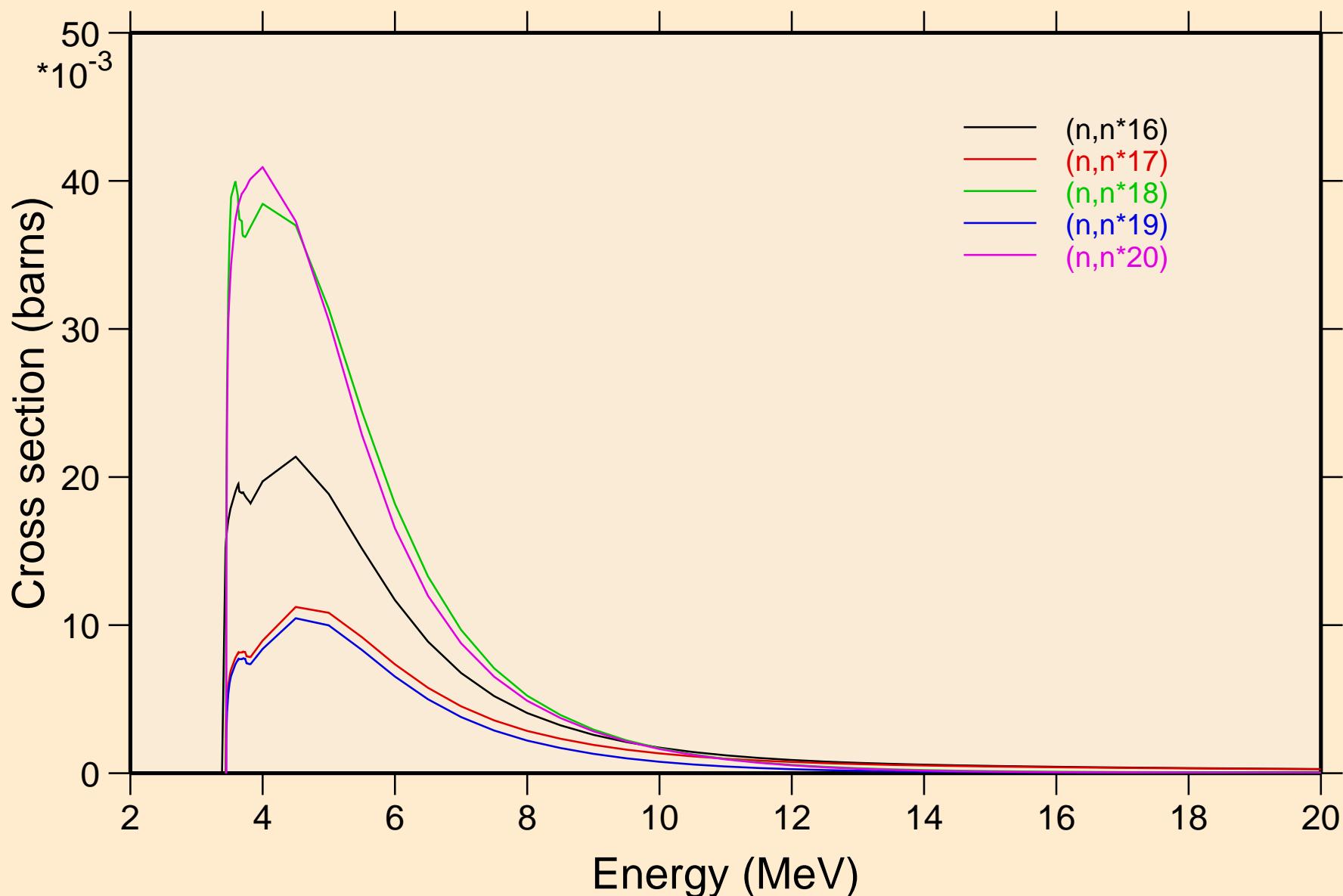
JENDL-4 V-51  
Inelastic levels



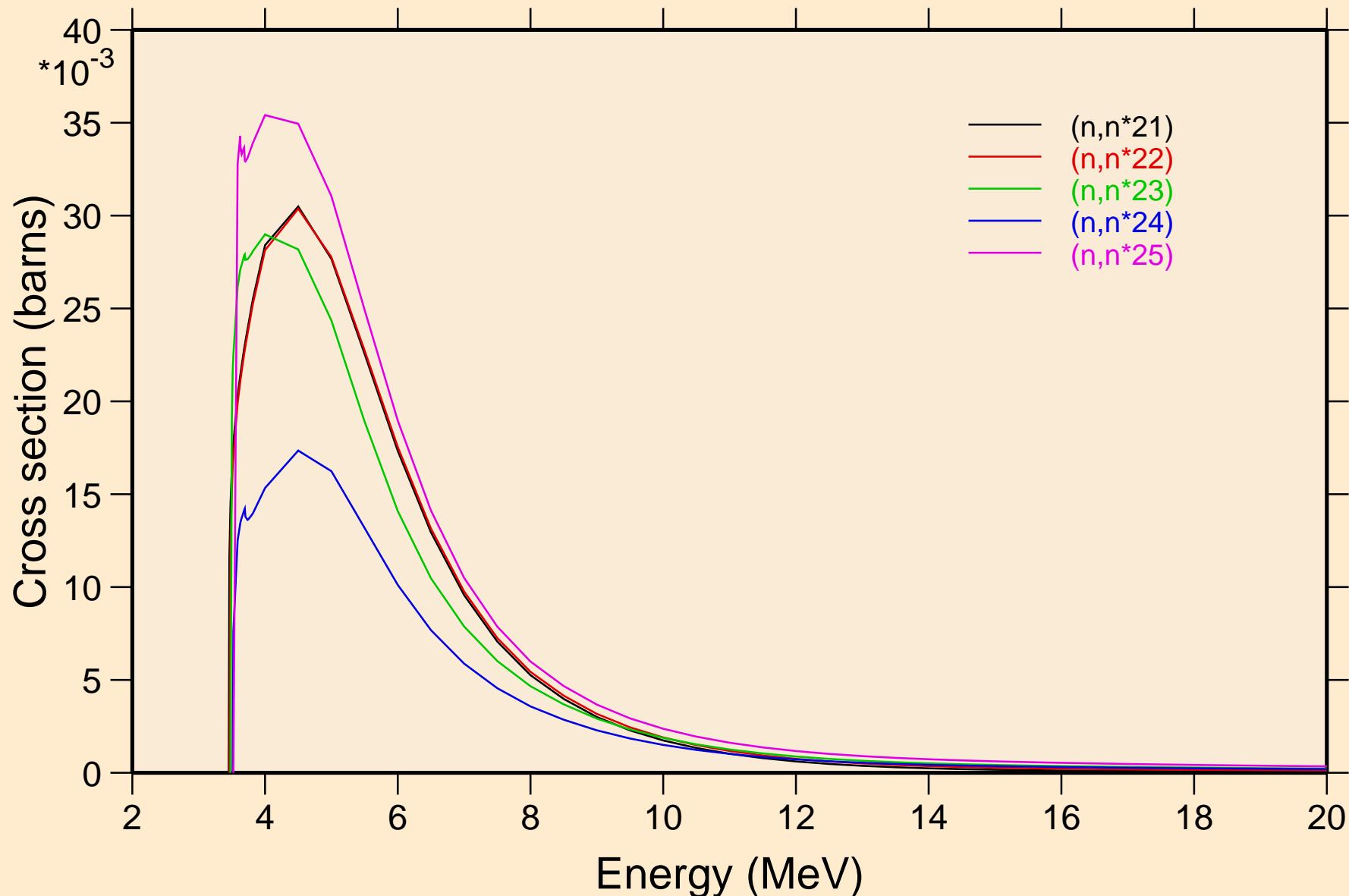
JENDL-4 V-51  
Inelastic levels



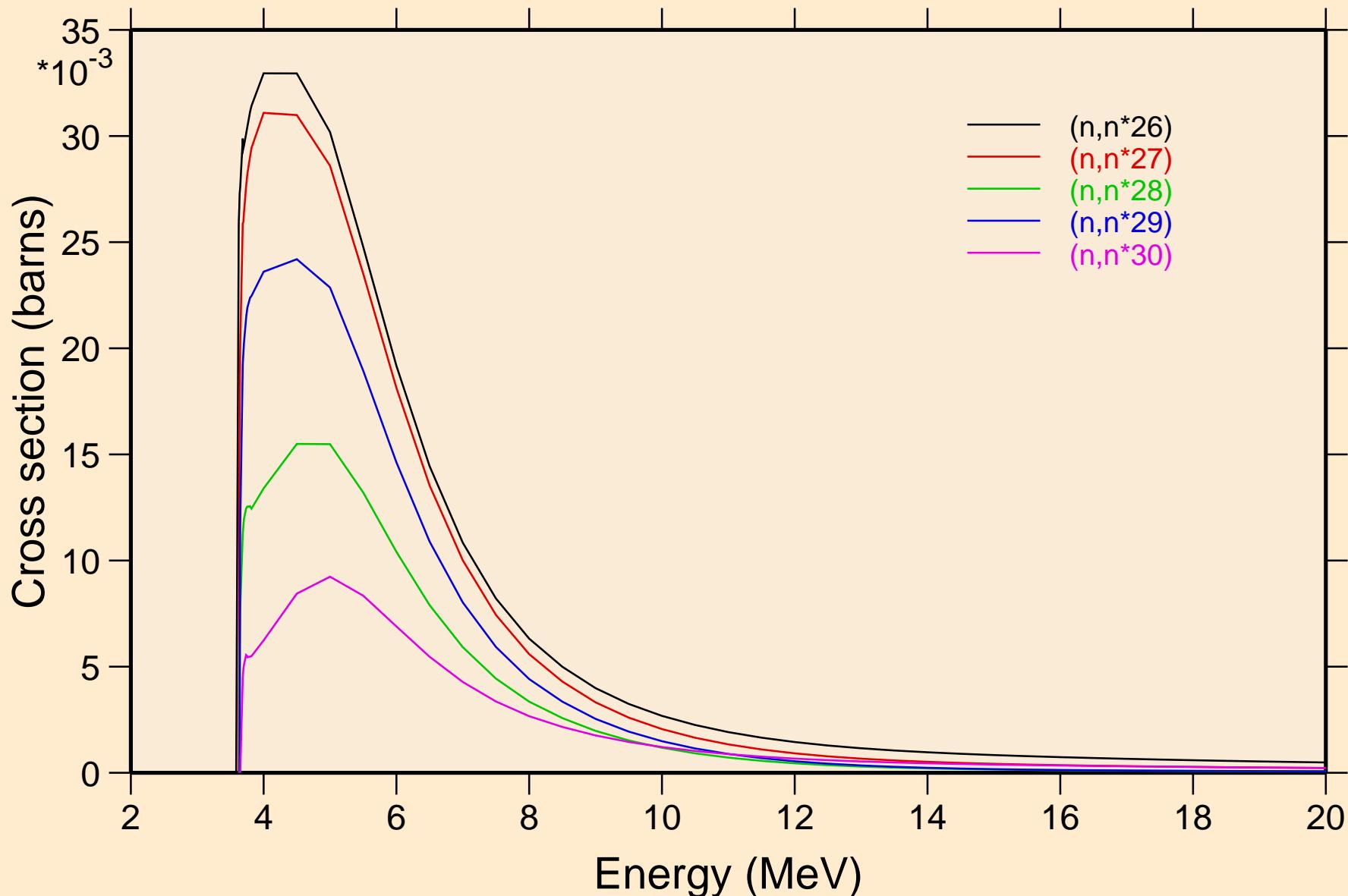
JENDL-4 V-51  
Inelastic levels



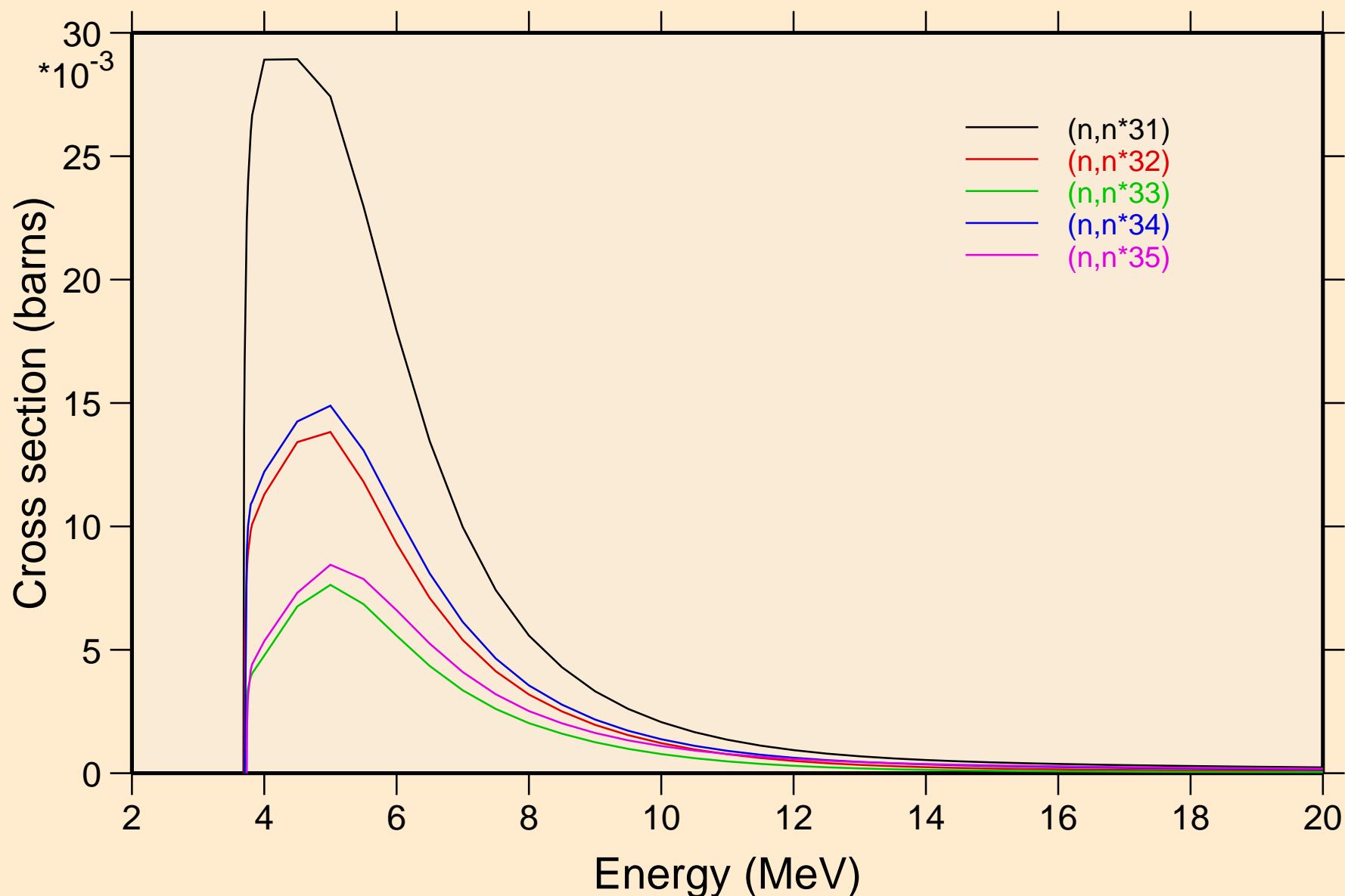
JENDL-4 V-51  
Inelastic levels



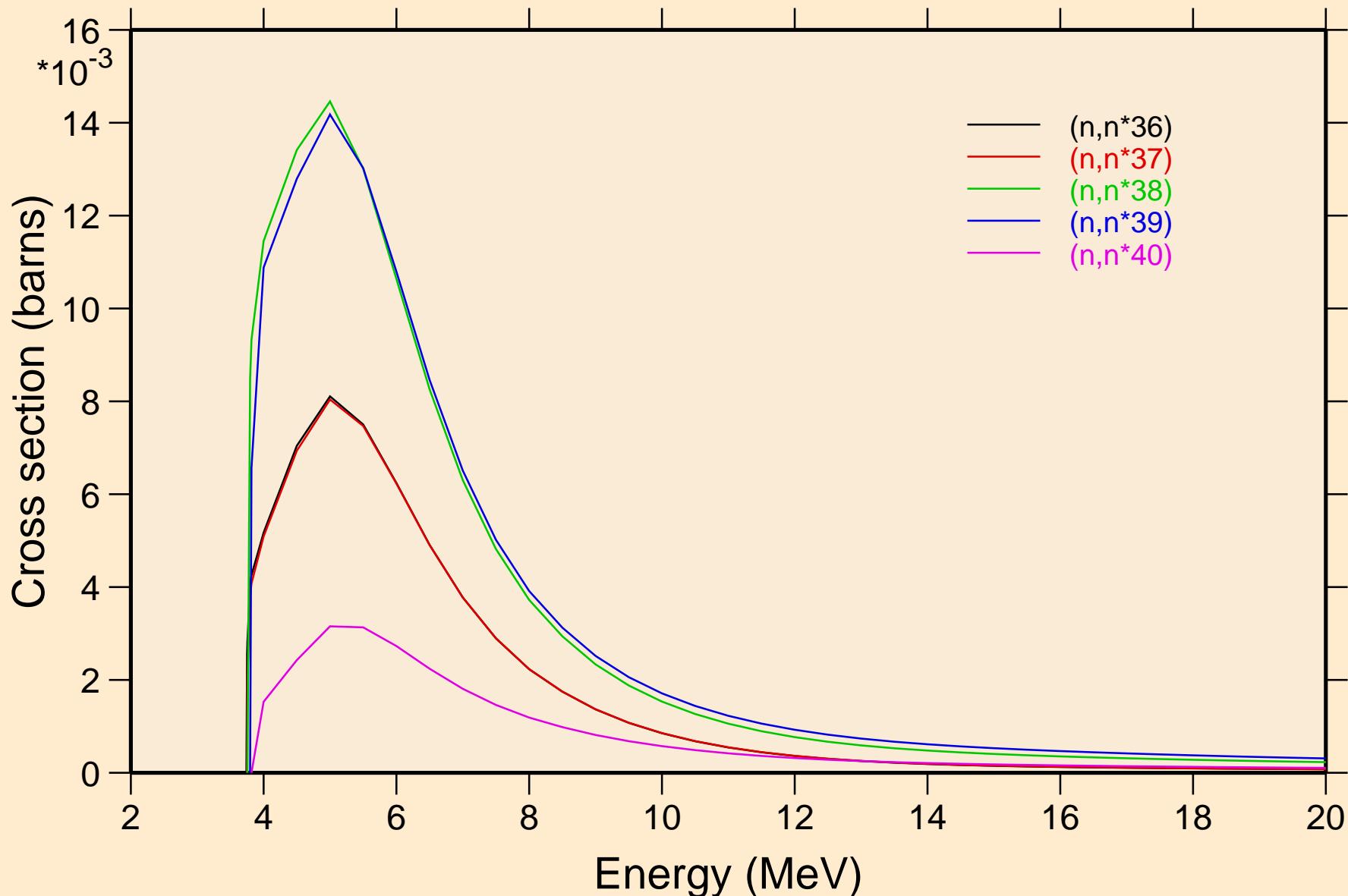
JENDL-4 V-51  
Inelastic levels



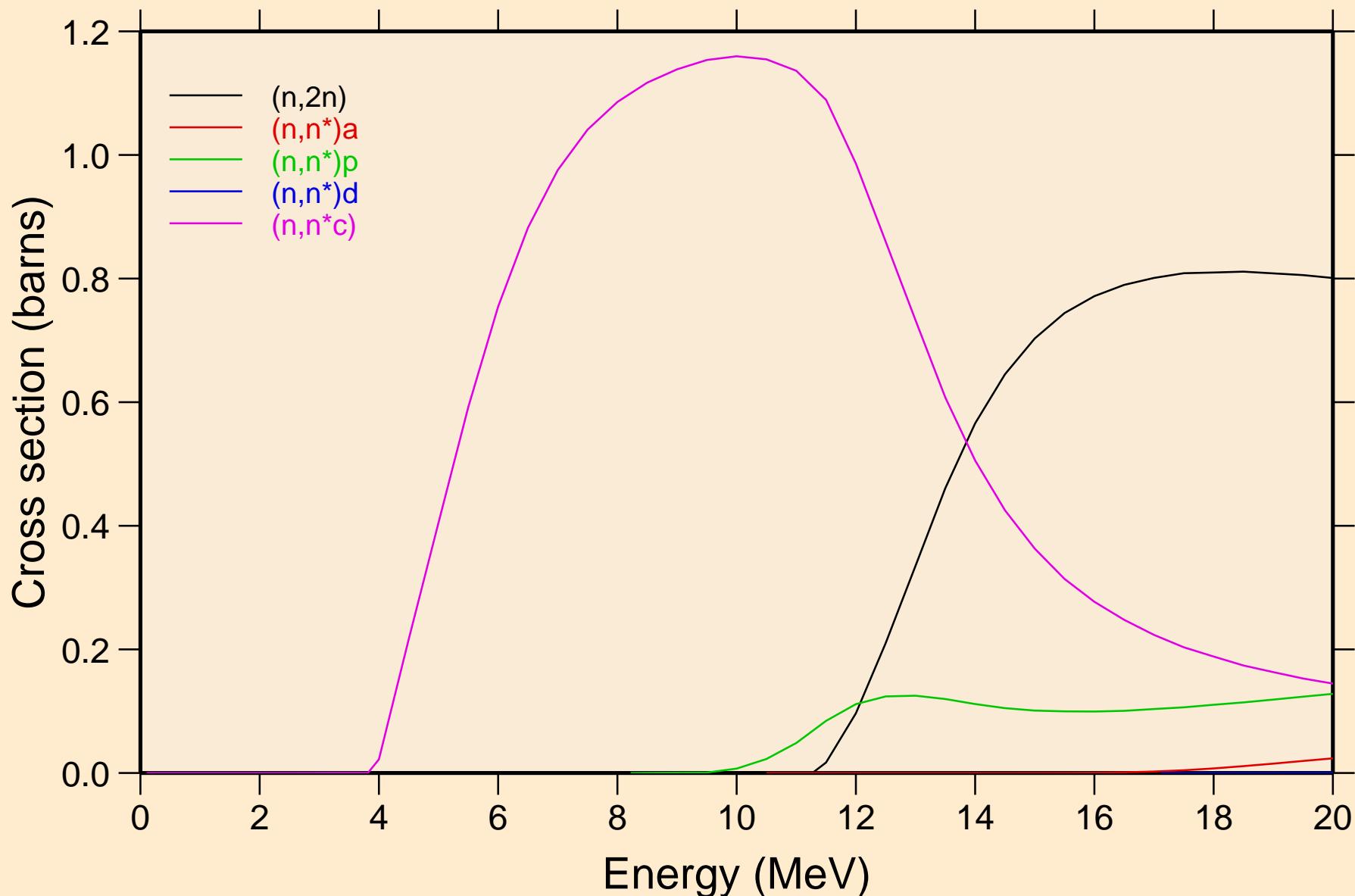
JENDL-4 V-51  
Inelastic levels



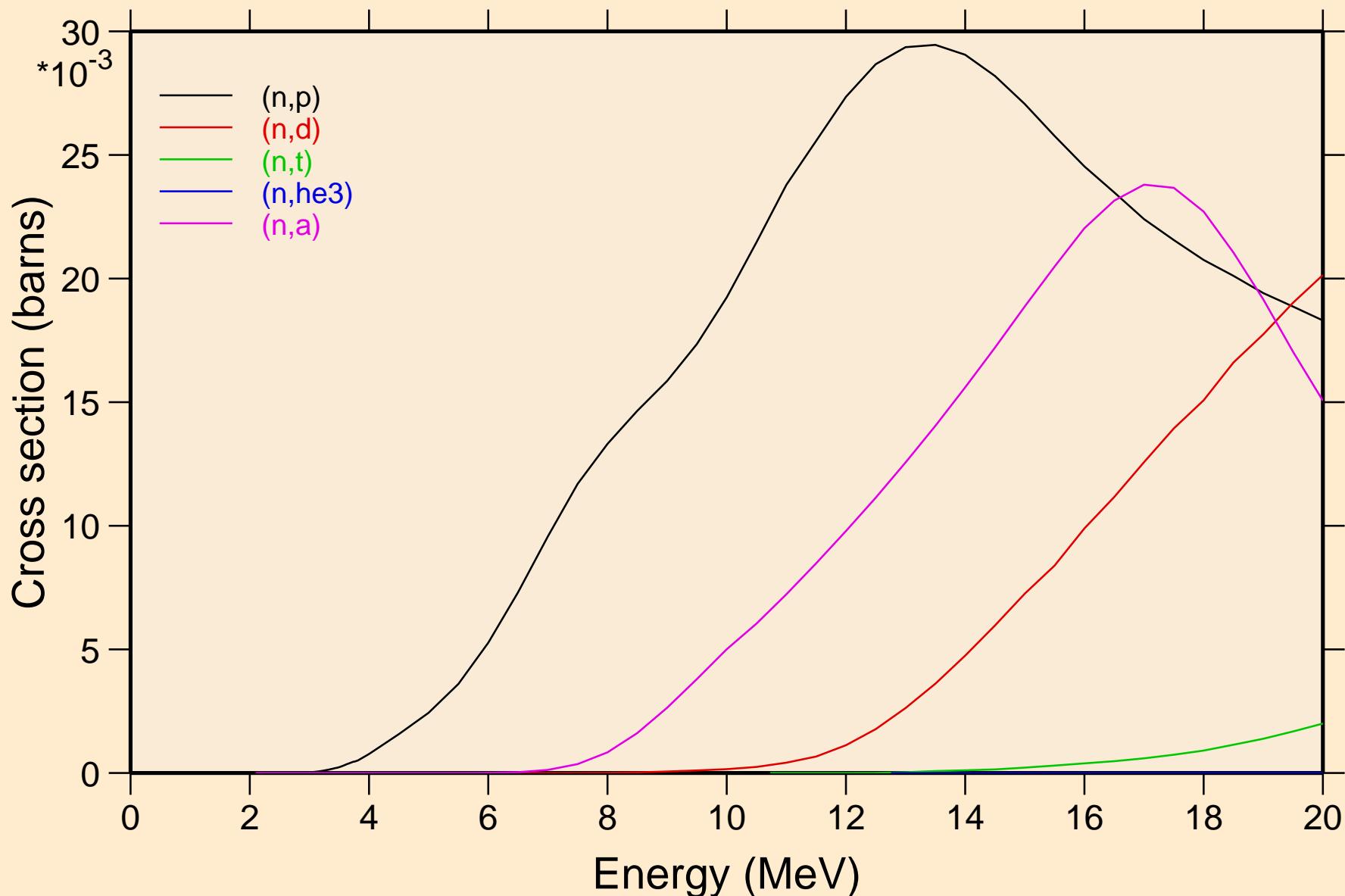
JENDL-4 V-51  
Inelastic levels



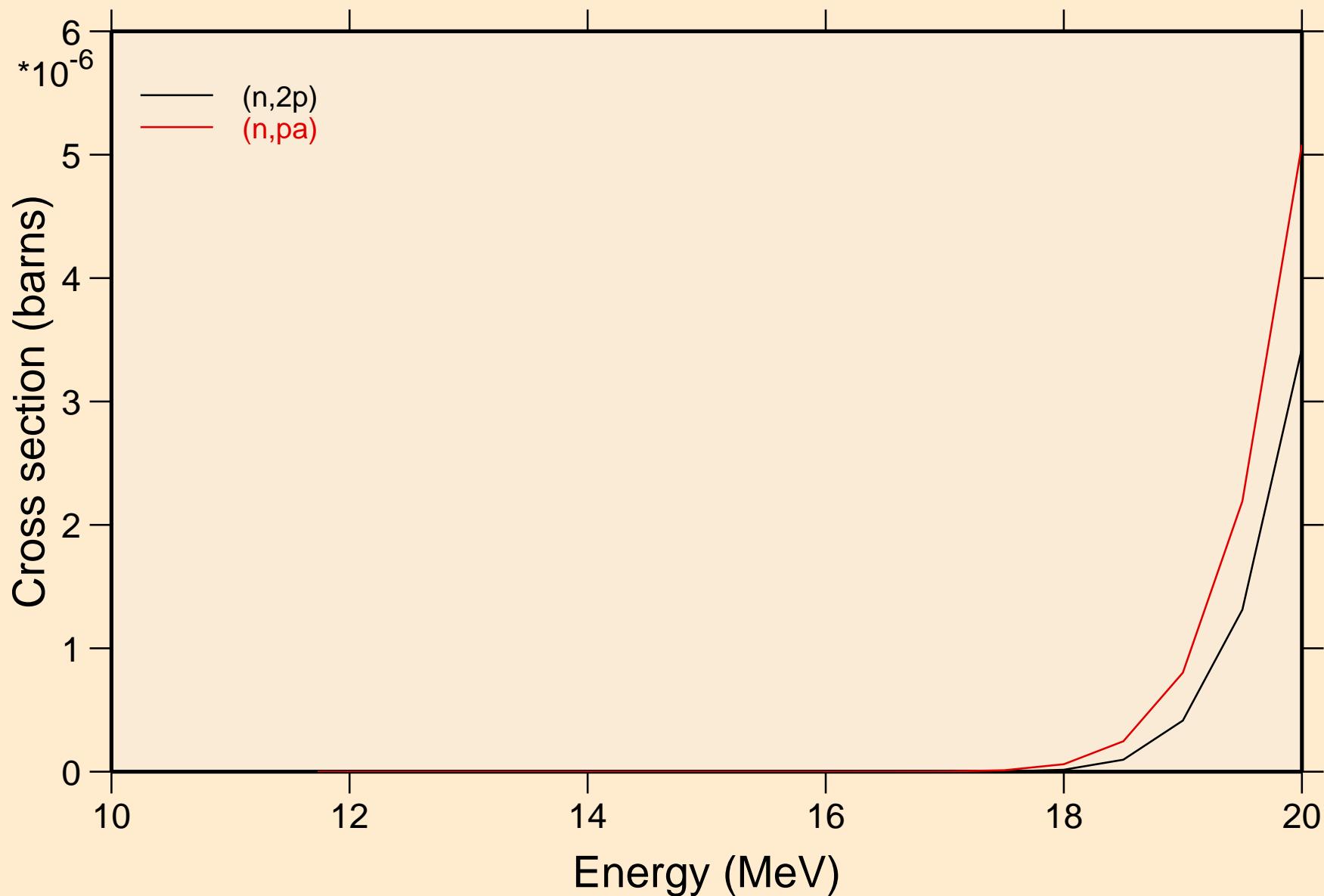
JENDL-4 V-51  
Threshold reactions



JENDL-4 V-51  
Threshold reactions

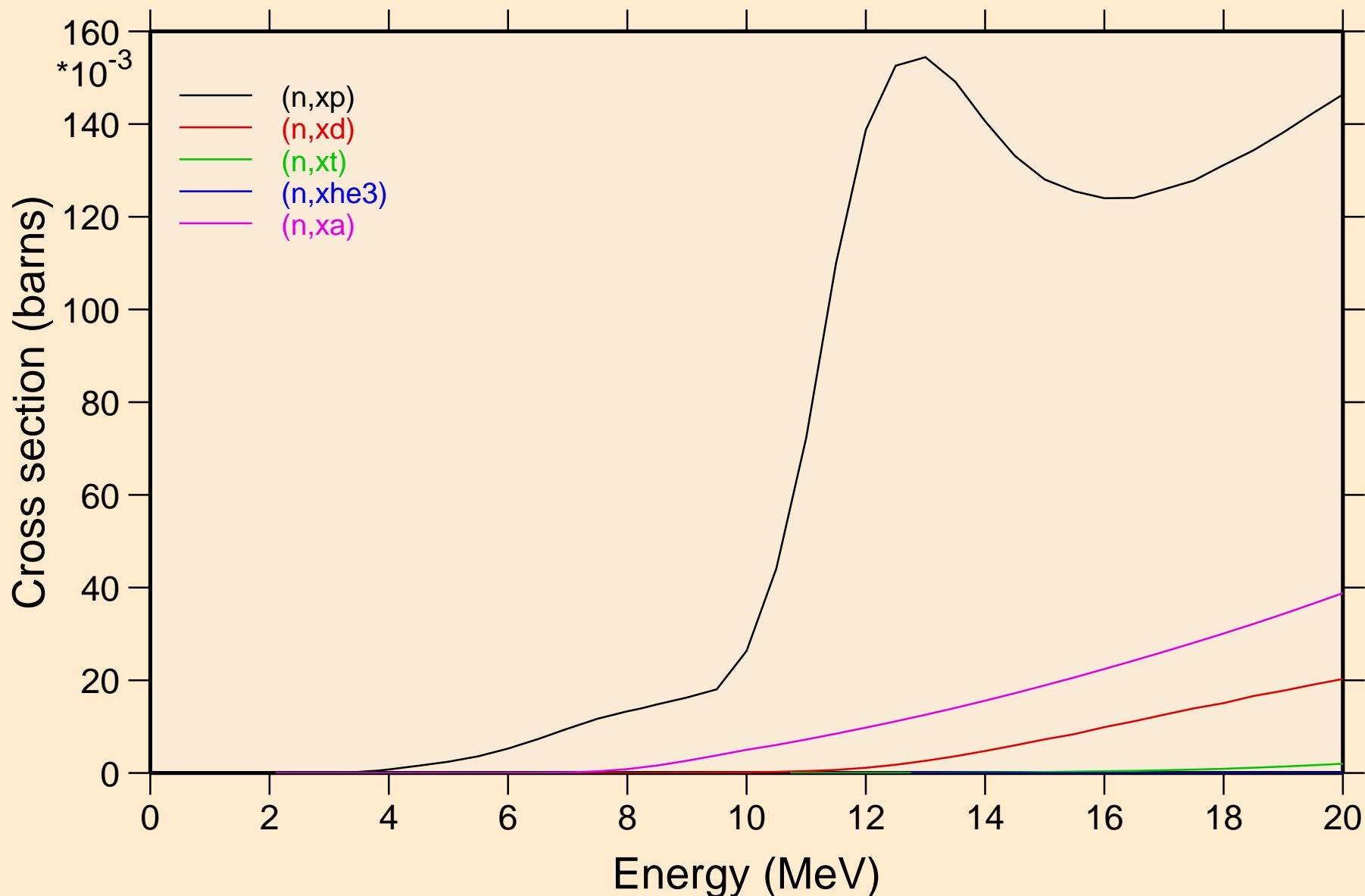


JENDL-4 V-51  
Threshold reactions

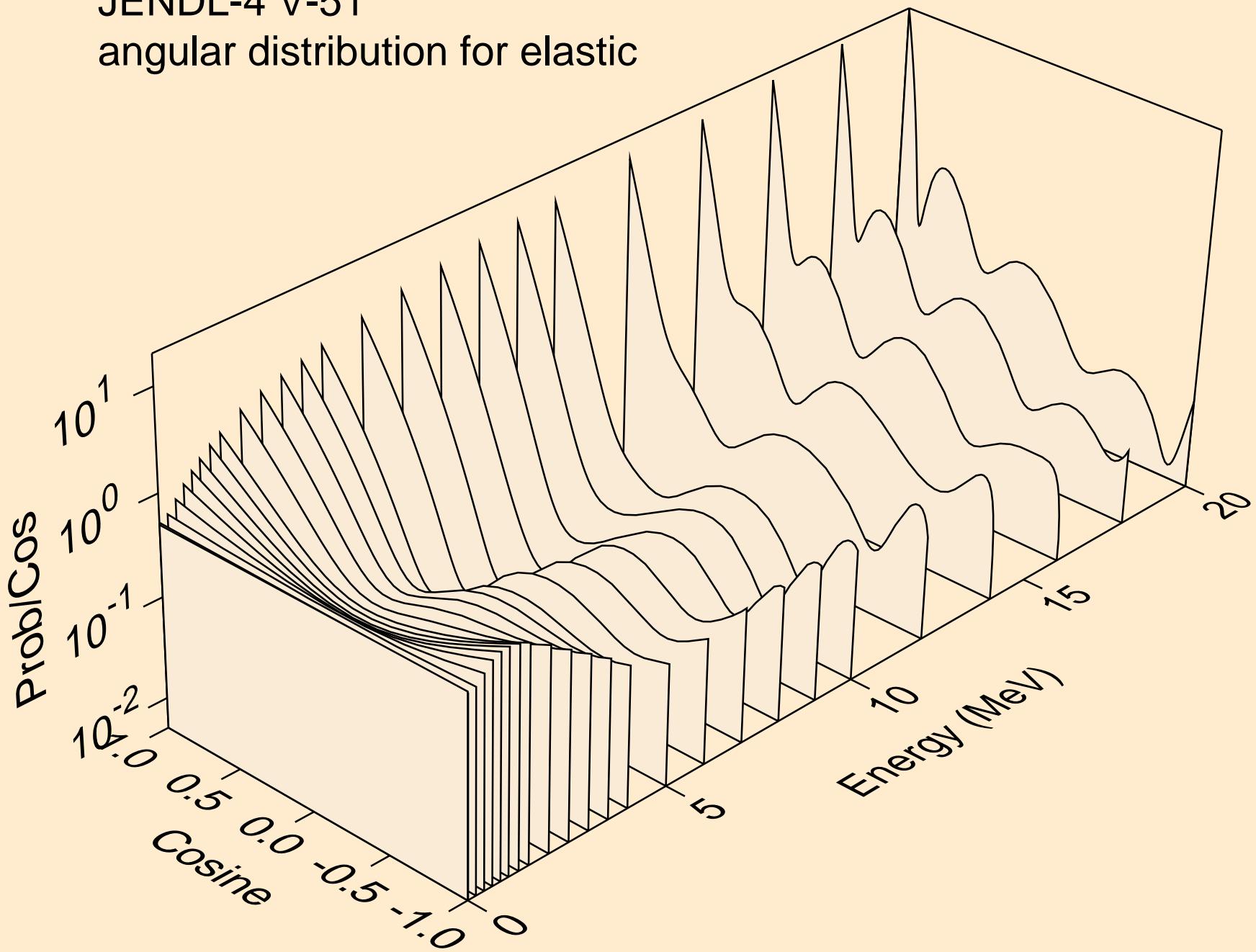


# JENDL-4 V-51

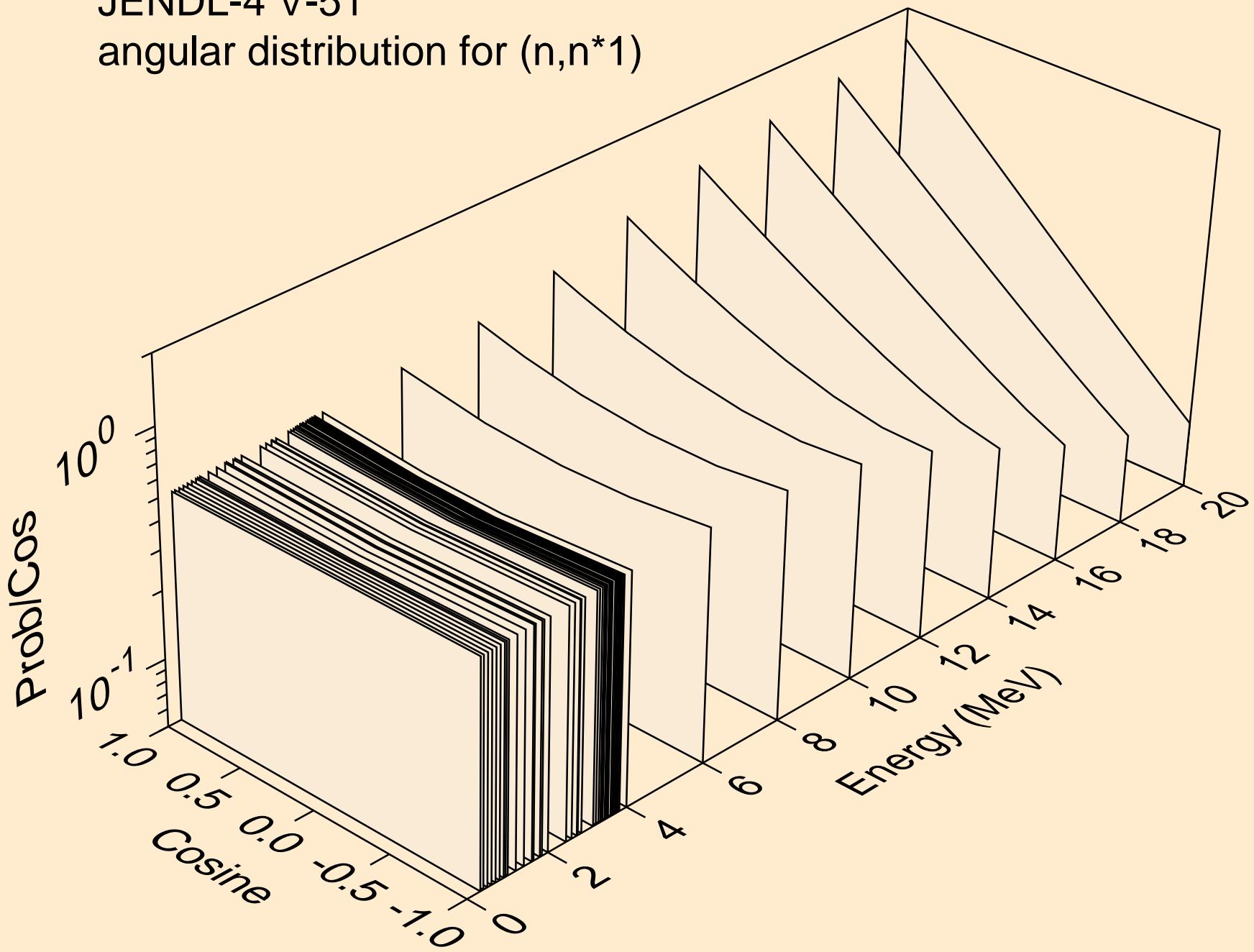
## Threshold reactions



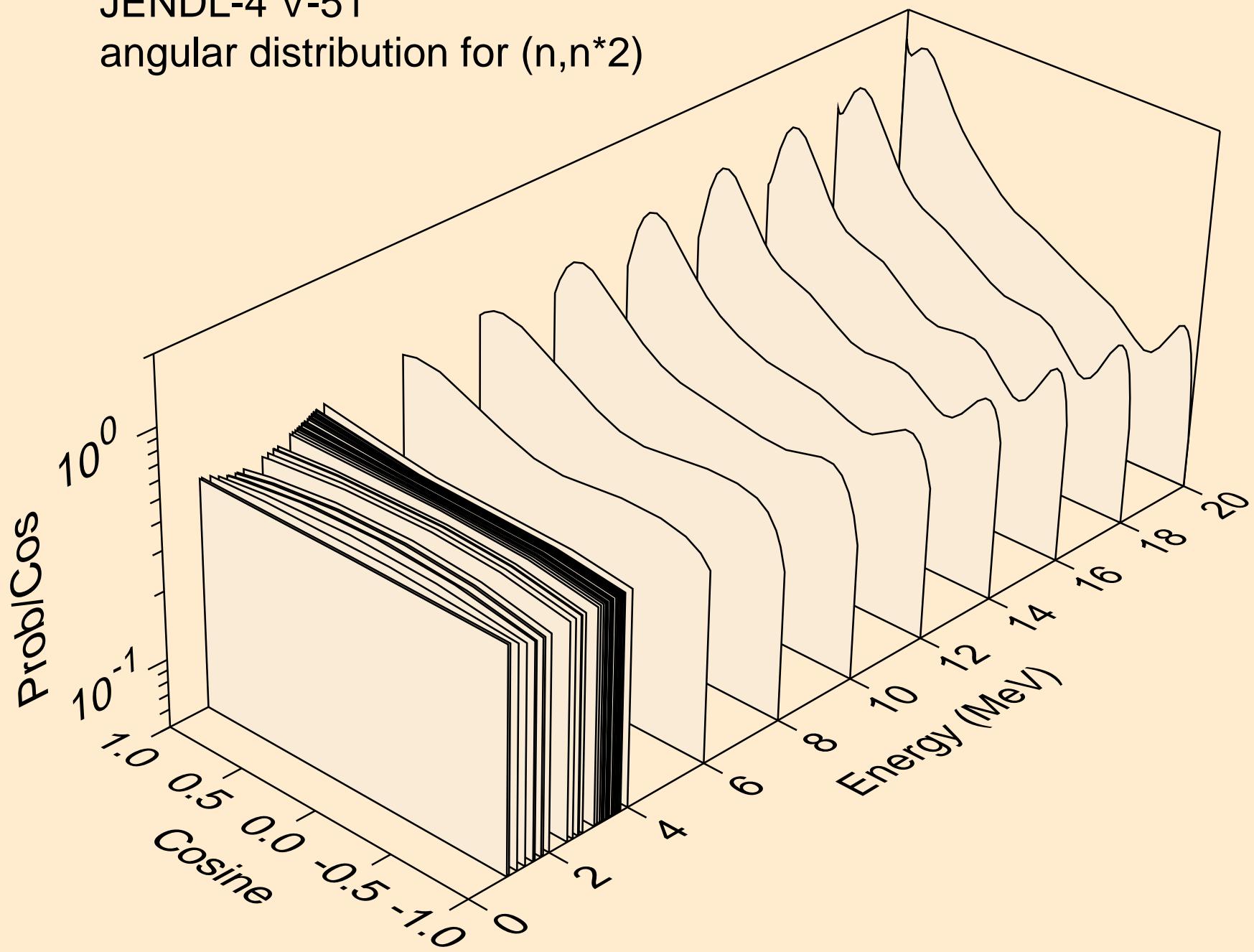
JENDL-4 V-51  
angular distribution for elastic



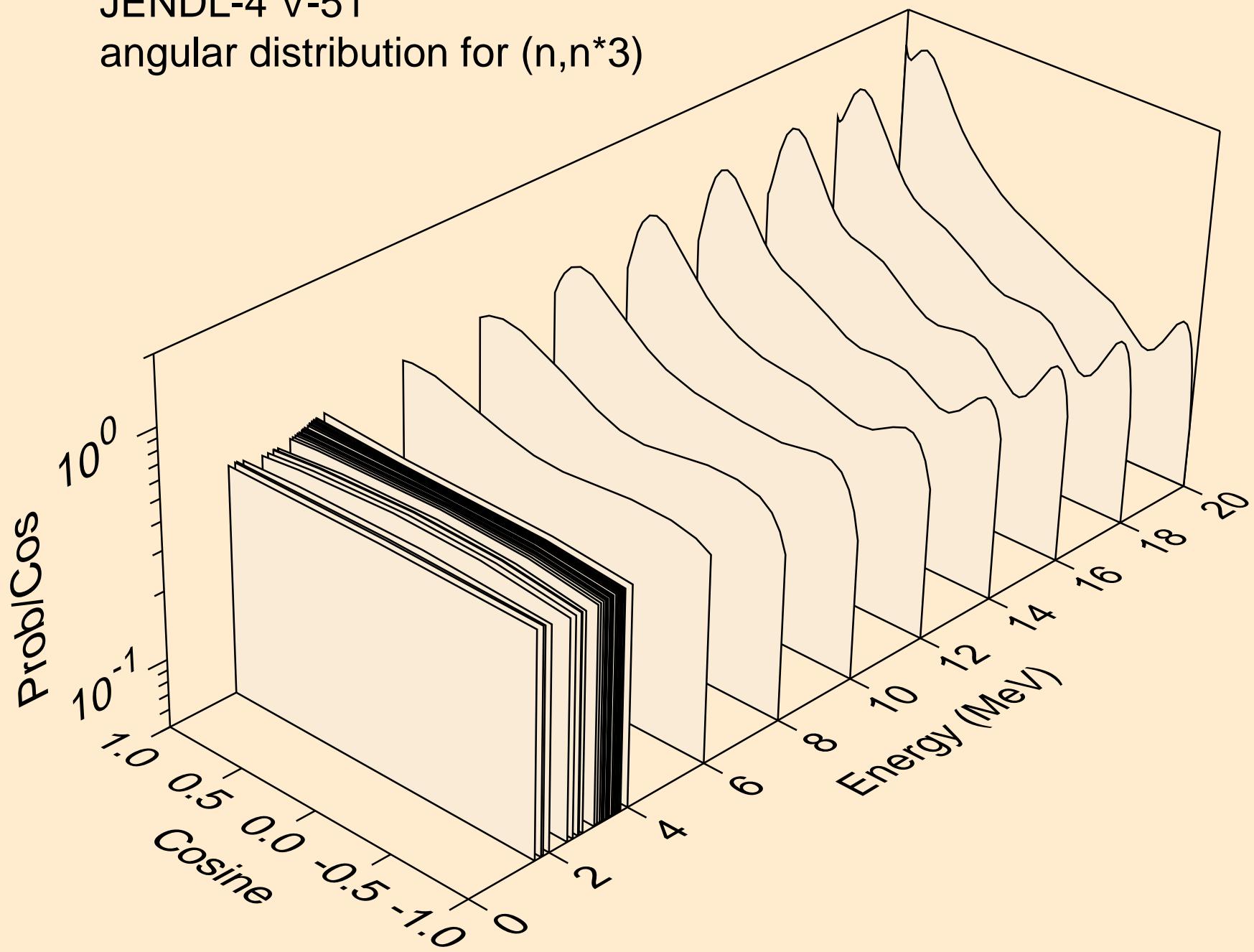
JENDL-4 V-51  
angular distribution for (n,n\*1)



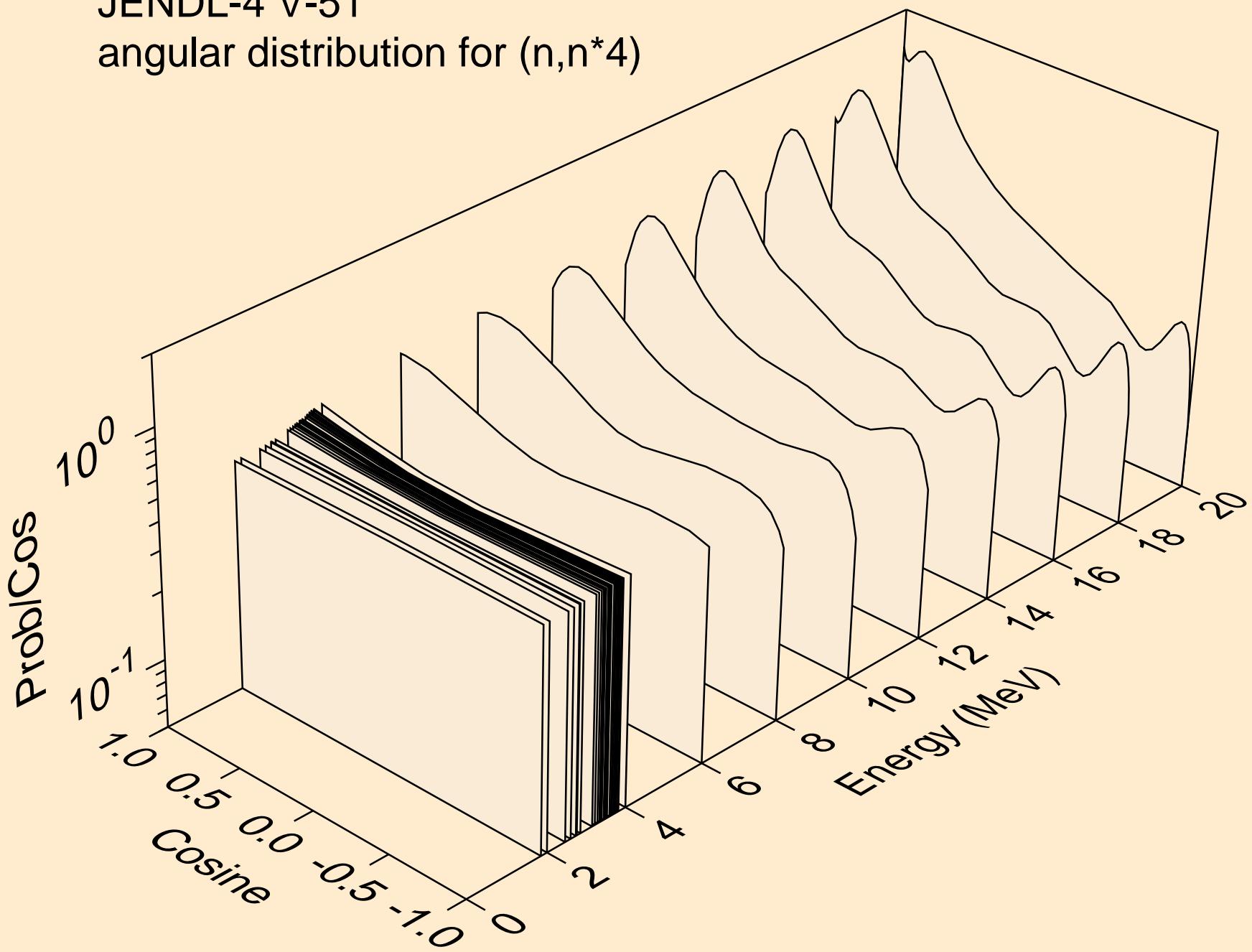
JENDL-4 V-51  
angular distribution for  $(n,n^*)^2$



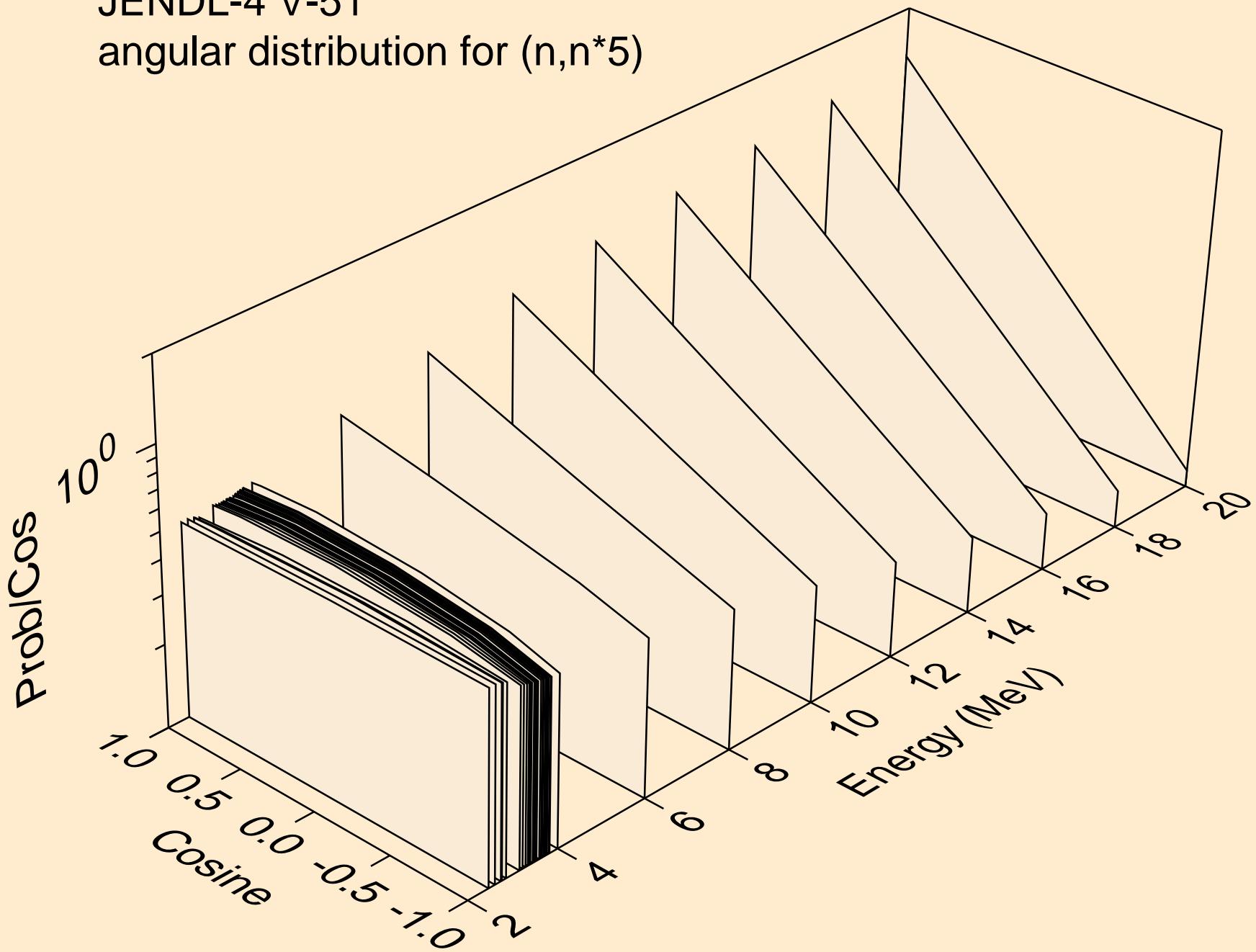
JENDL-4 V-51  
angular distribution for  $(n,n^*3)$



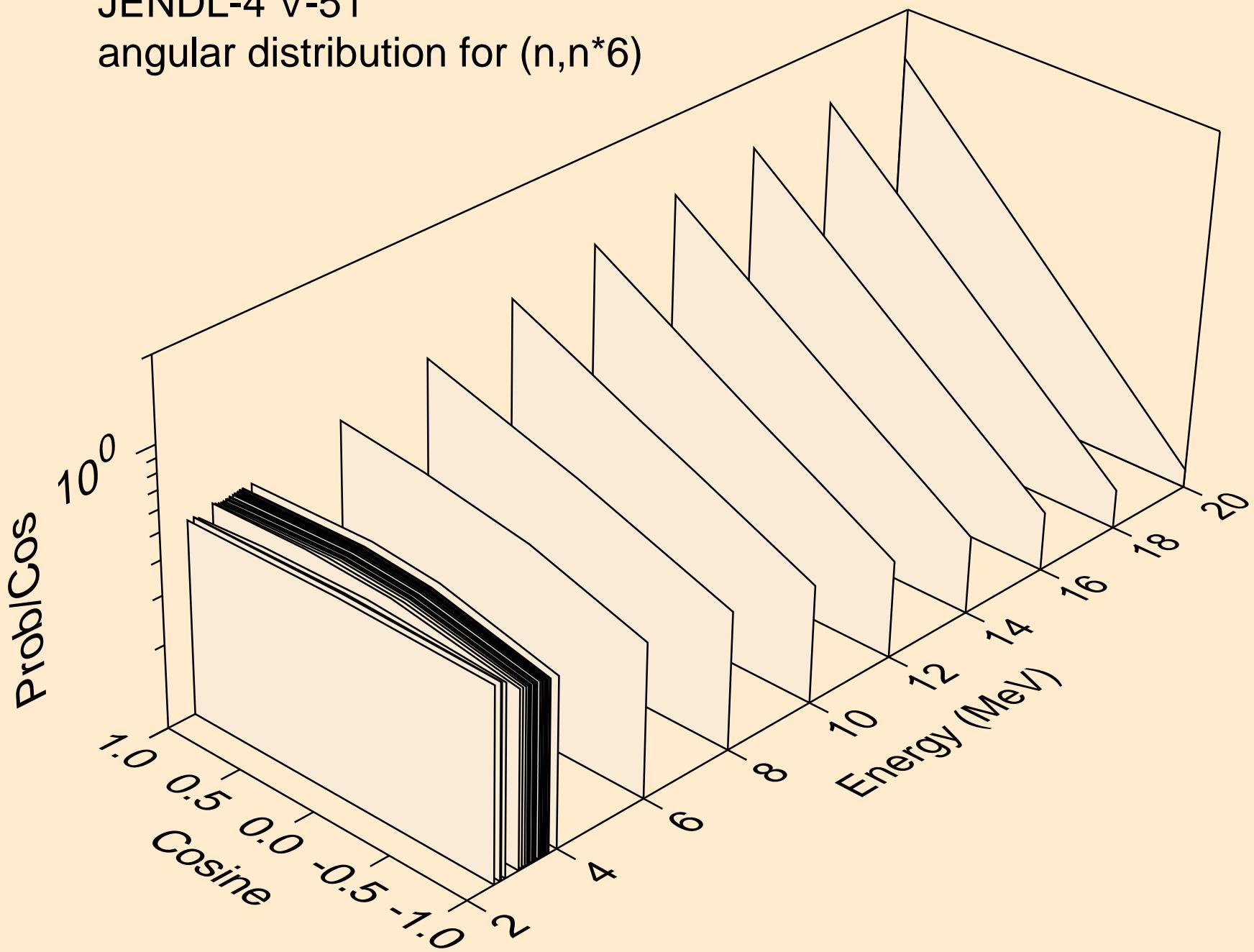
JENDL-4 V-51  
angular distribution for  $(n,n^*4)$



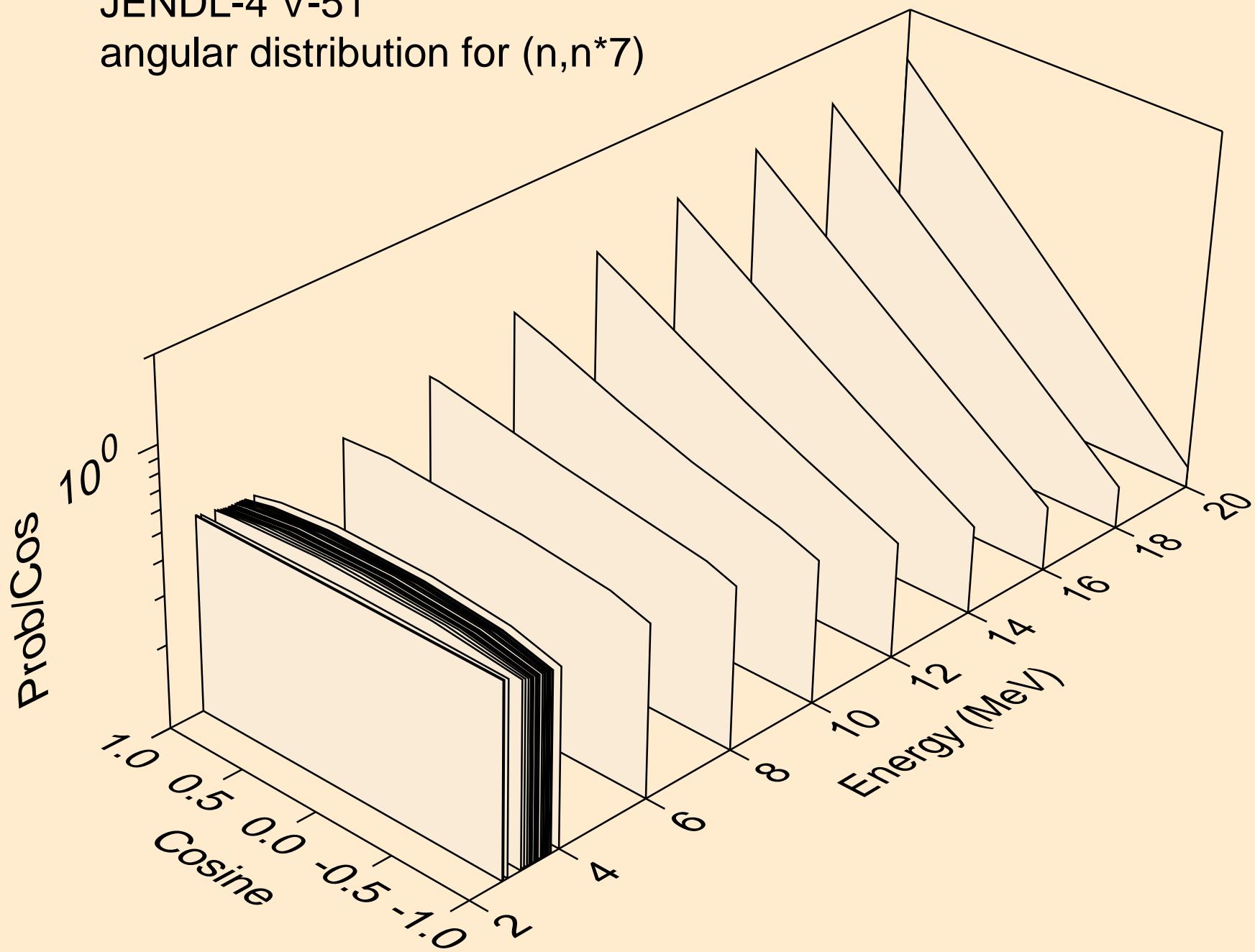
JENDL-4 V-51  
angular distribution for (n,n\*5)



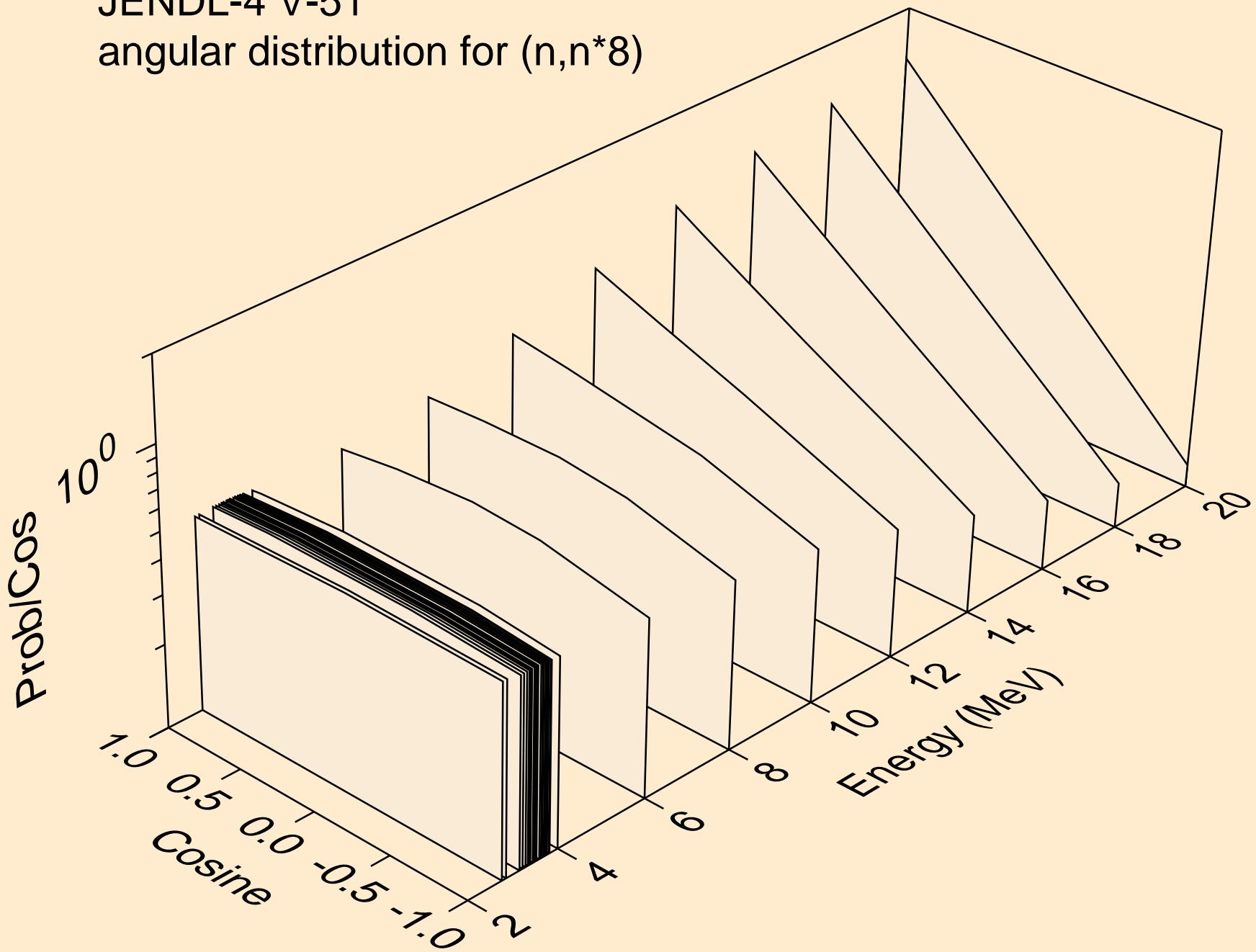
JENDL-4 V-51  
angular distribution for  $(n,n^*6)$



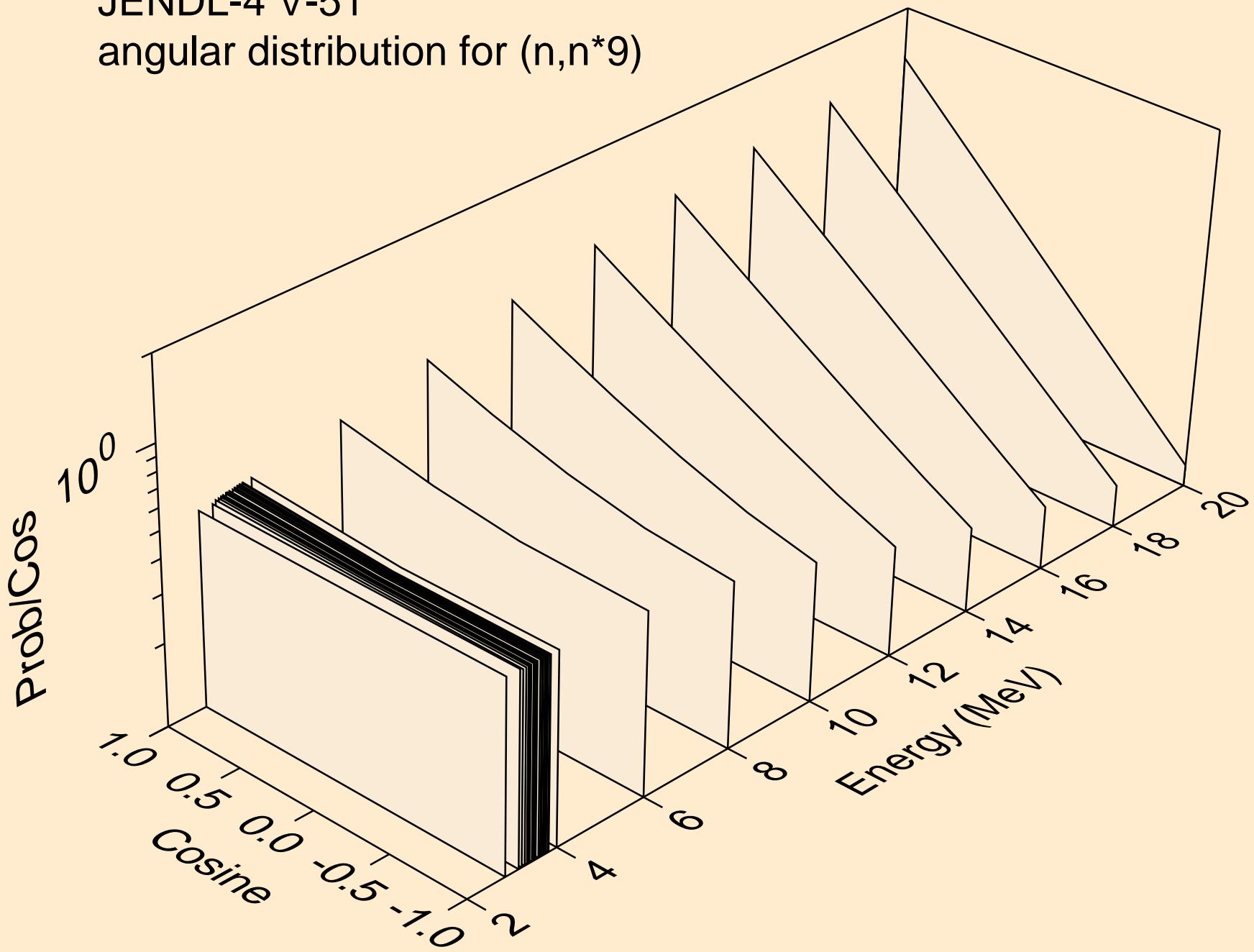
JENDL-4 V-51  
angular distribution for  $(n,n^*7)$



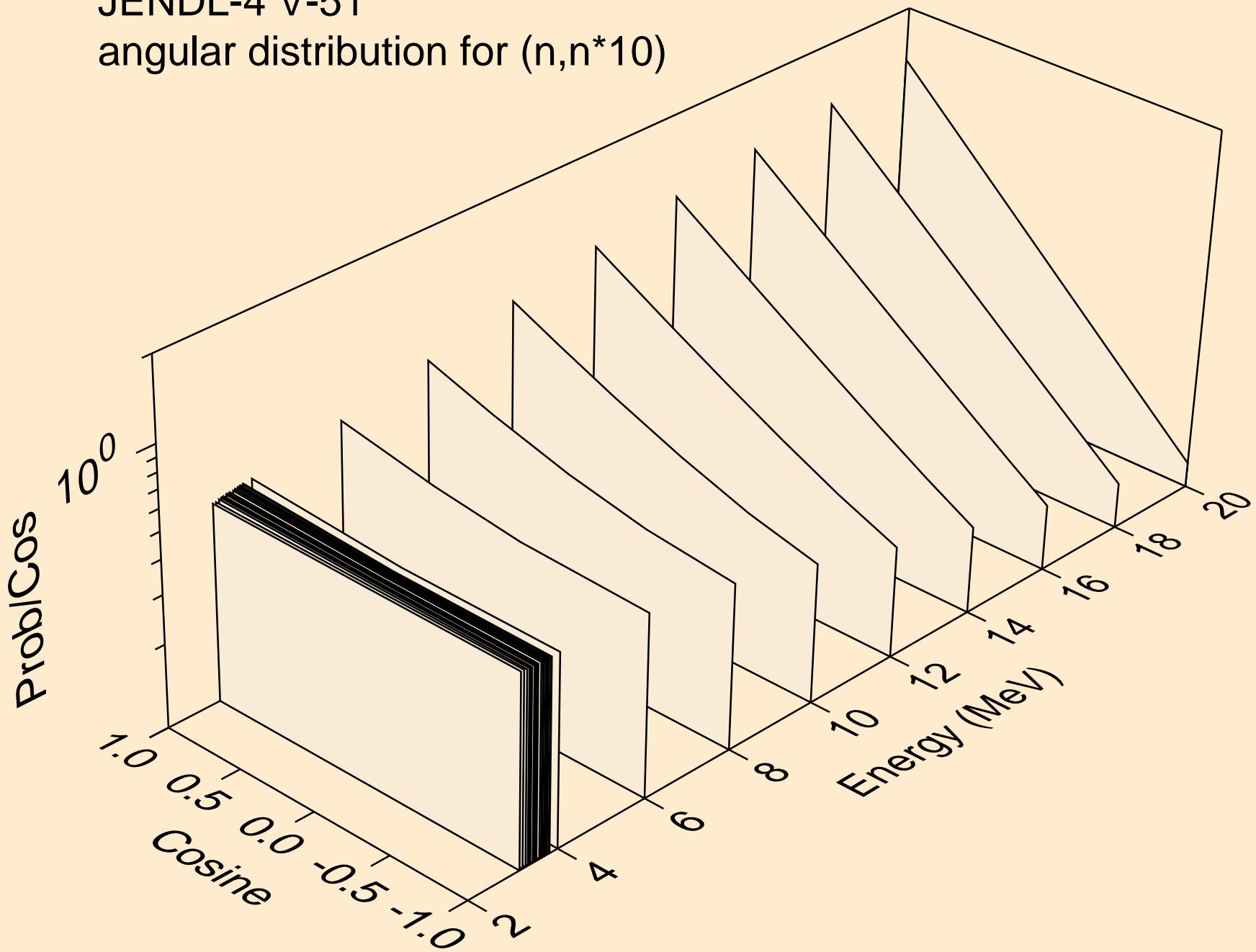
JENDL-4 V-51  
angular distribution for  $(n,n^*8)$



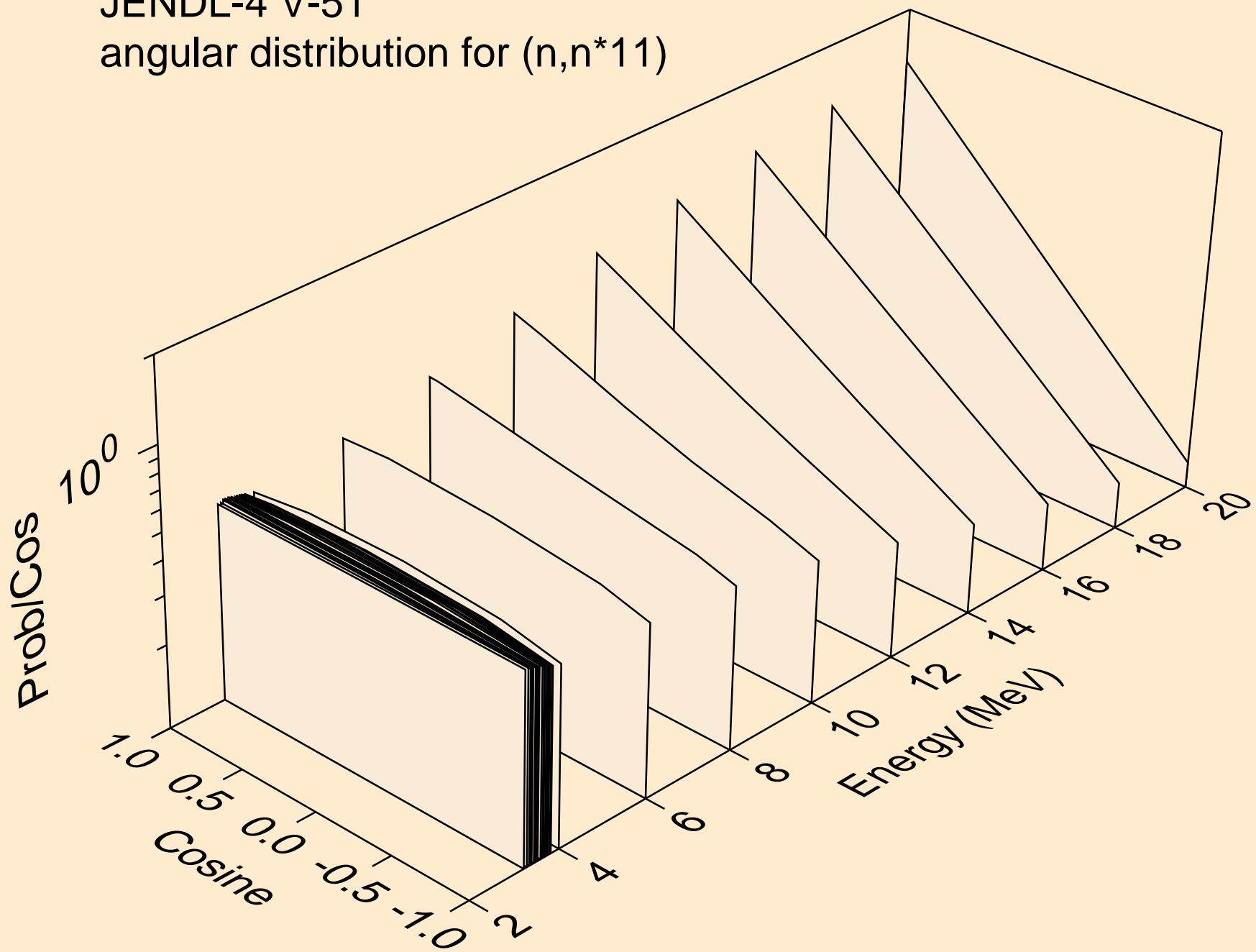
JENDL-4 V-51  
angular distribution for  $(n,n^*9)$



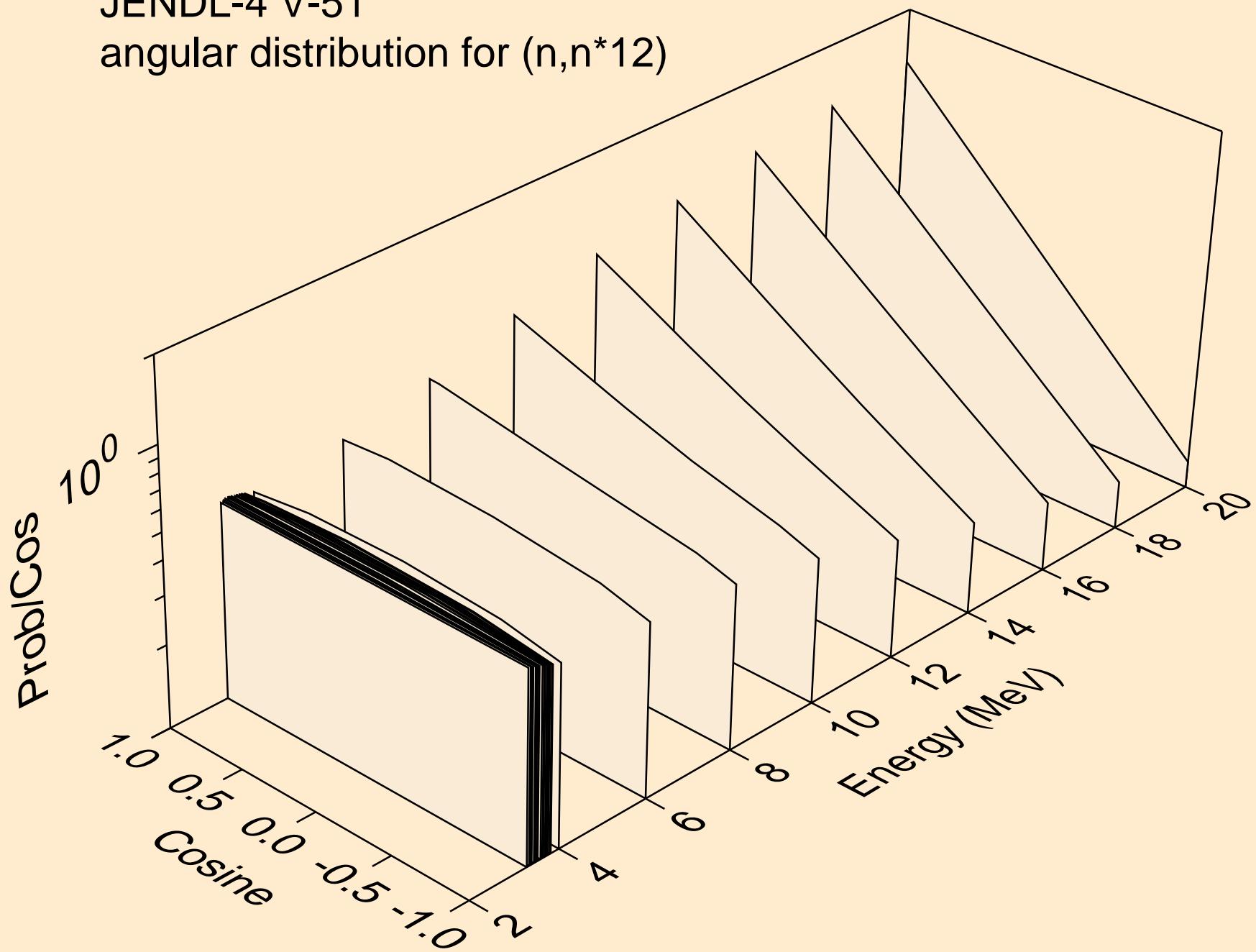
JENDL-4 V-51  
angular distribution for (n,n\*10)



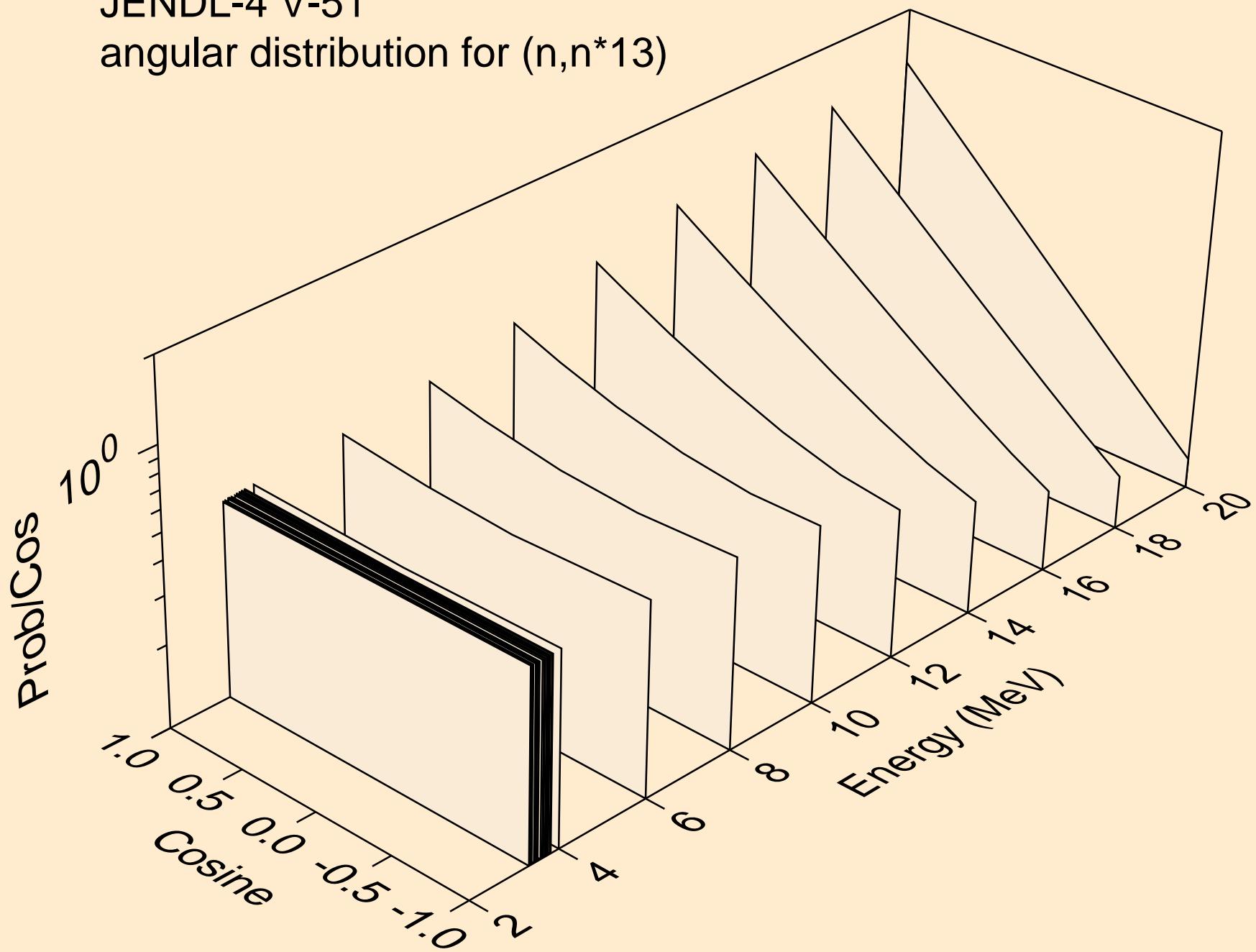
JENDL-4 V-51  
angular distribution for (n,n\*11)



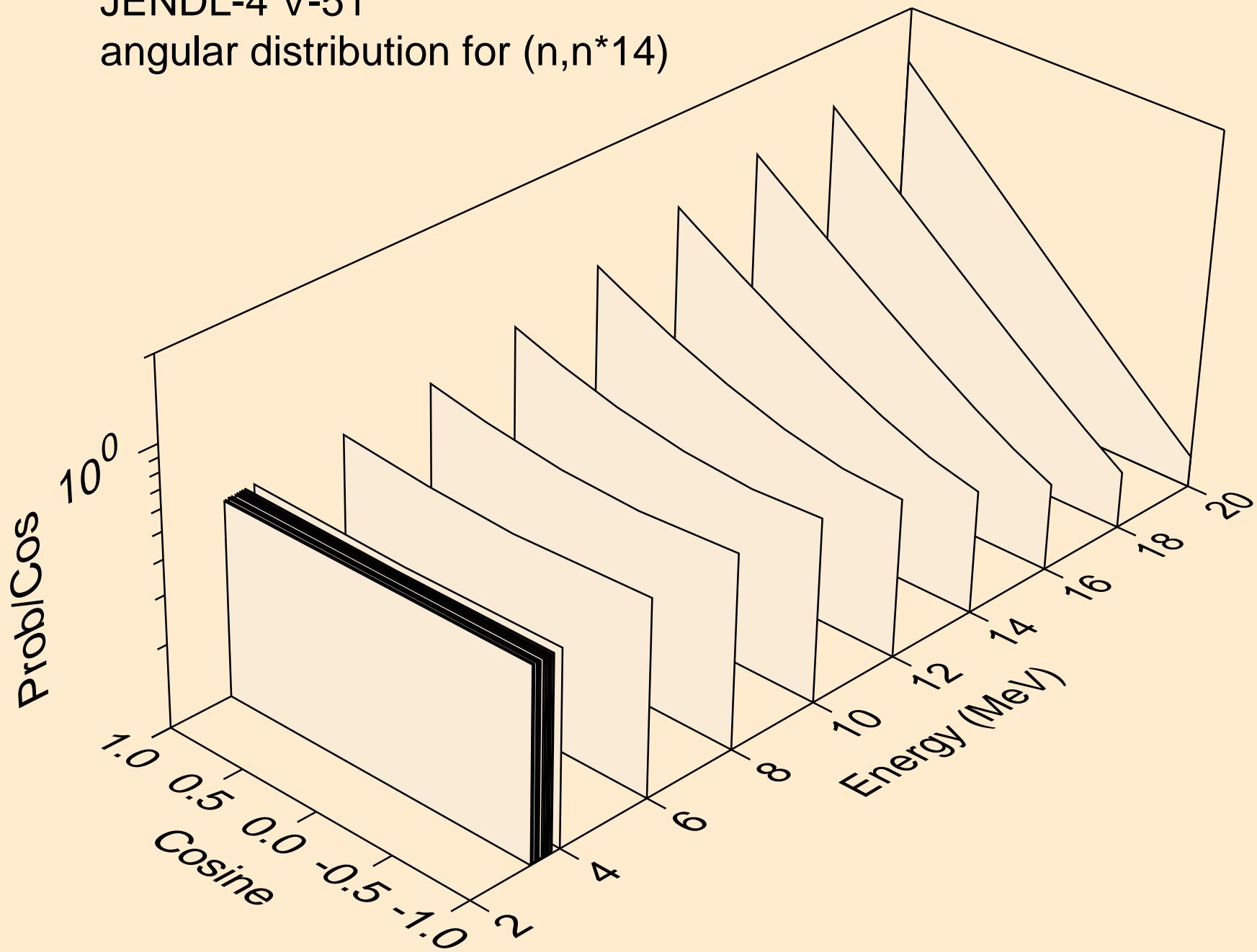
JENDL-4 V-51  
angular distribution for (n,n\*12)



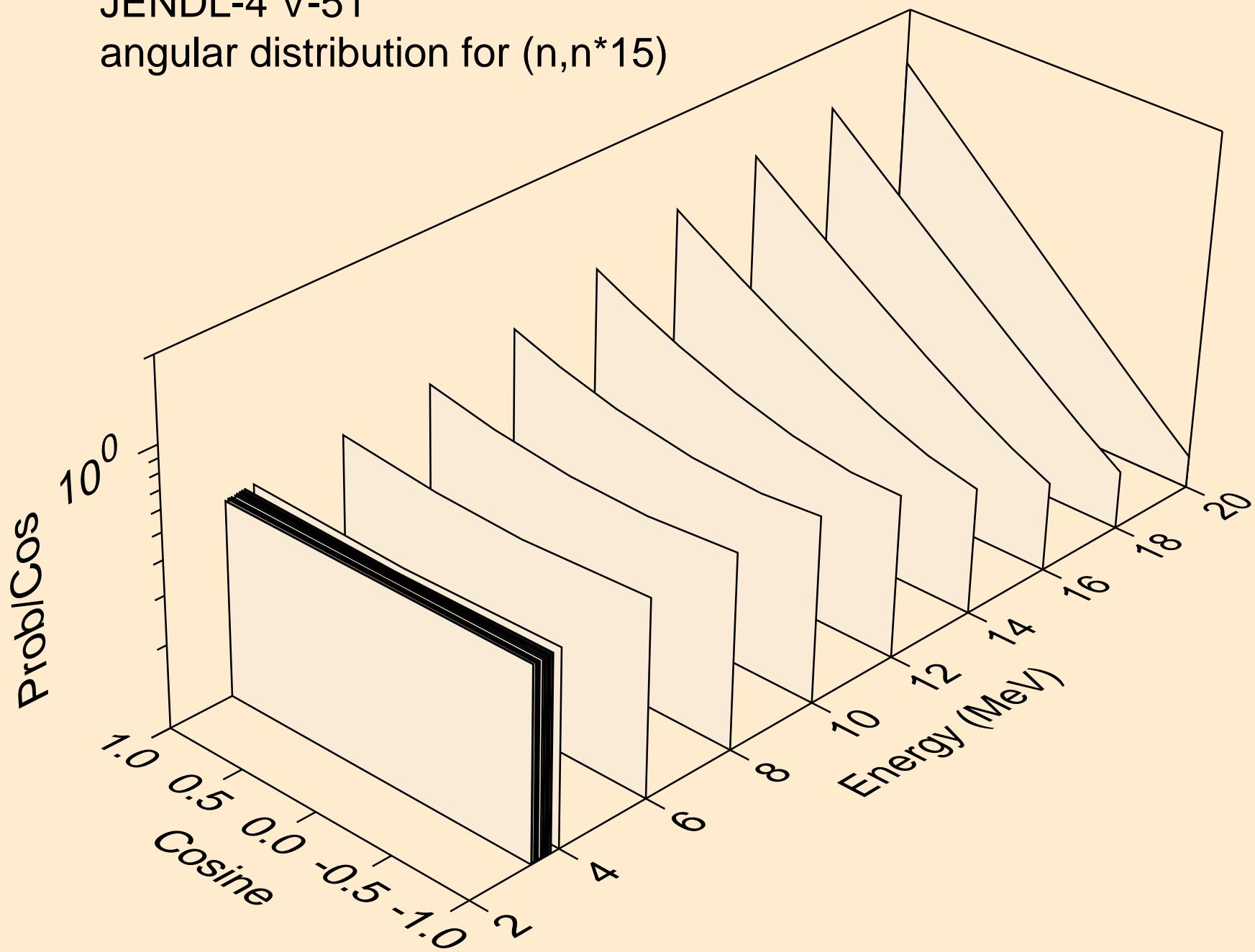
JENDL-4 V-51  
angular distribution for (n,n\*13)



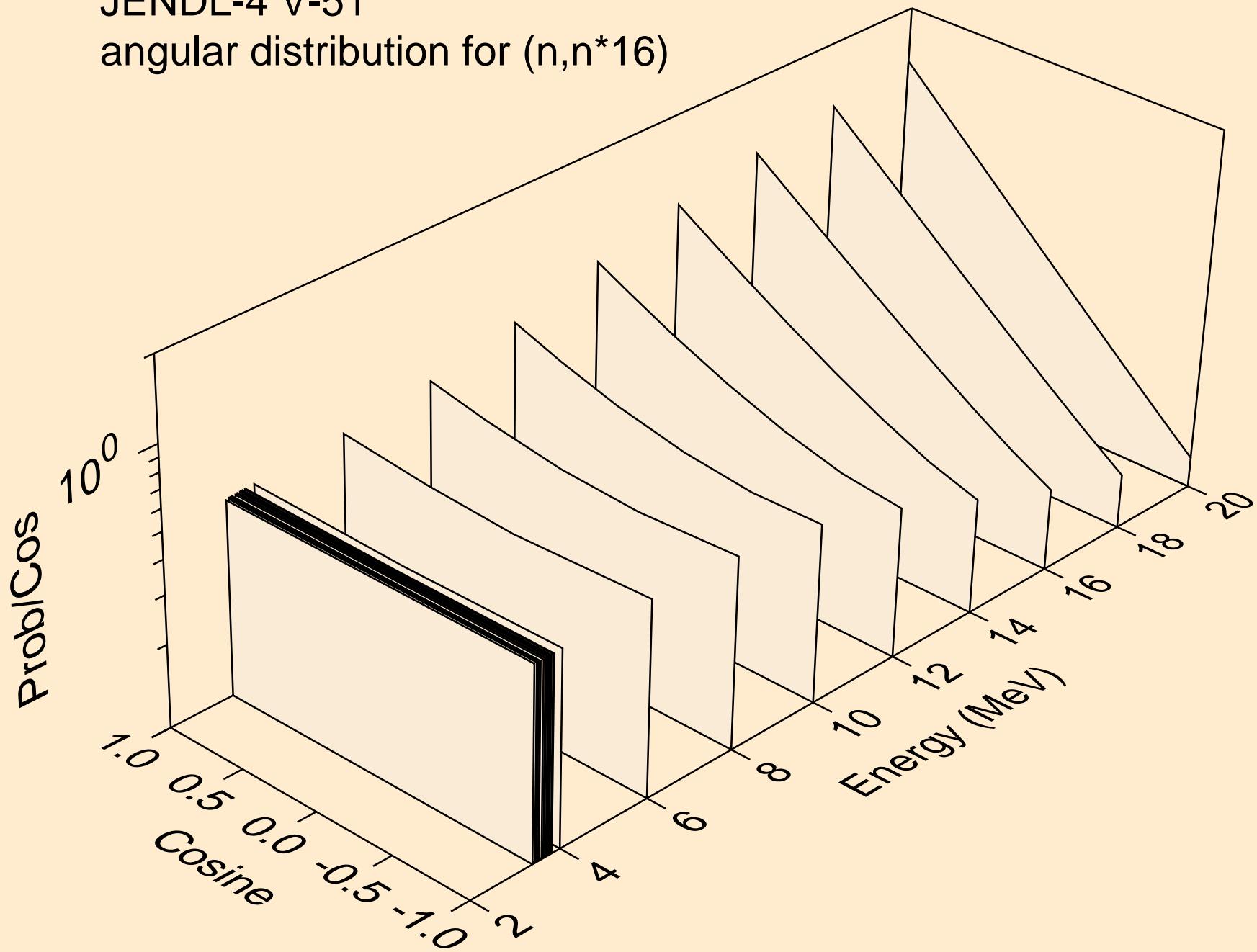
JENDL-4 V-51  
angular distribution for (n,n\*14)



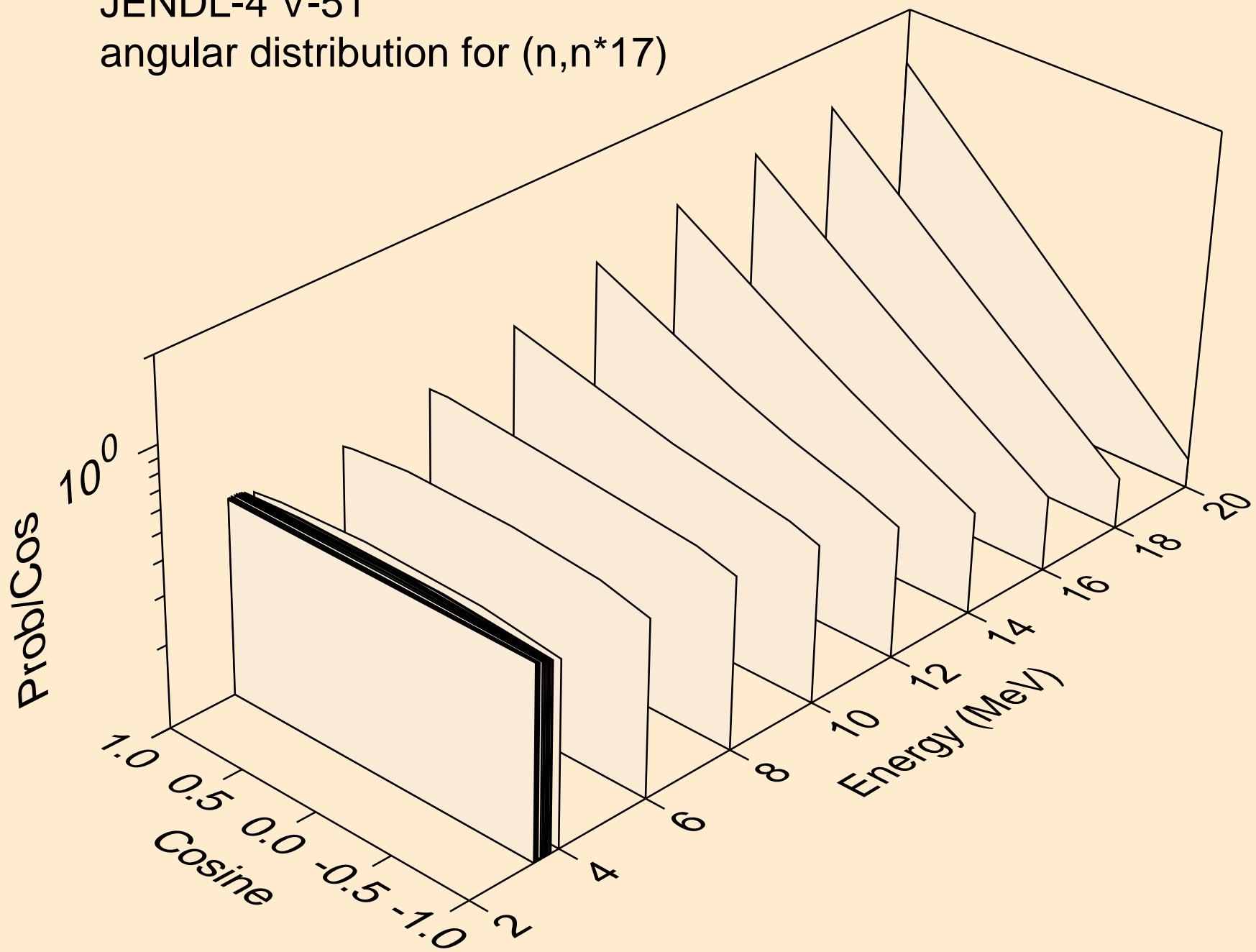
JENDL-4 V-51  
angular distribution for  $(n,n^*15)$



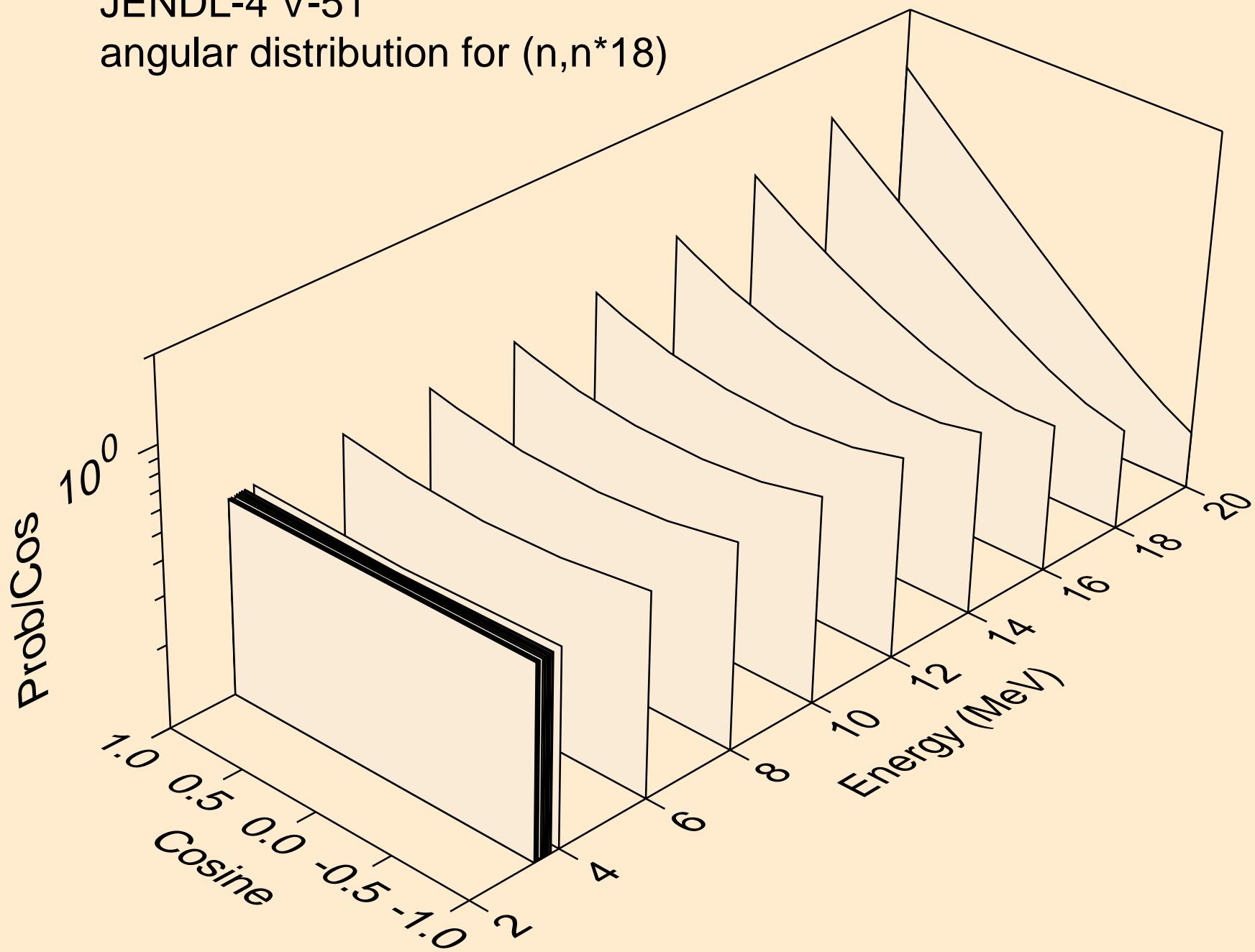
JENDL-4 V-51  
angular distribution for (n,n\*16)



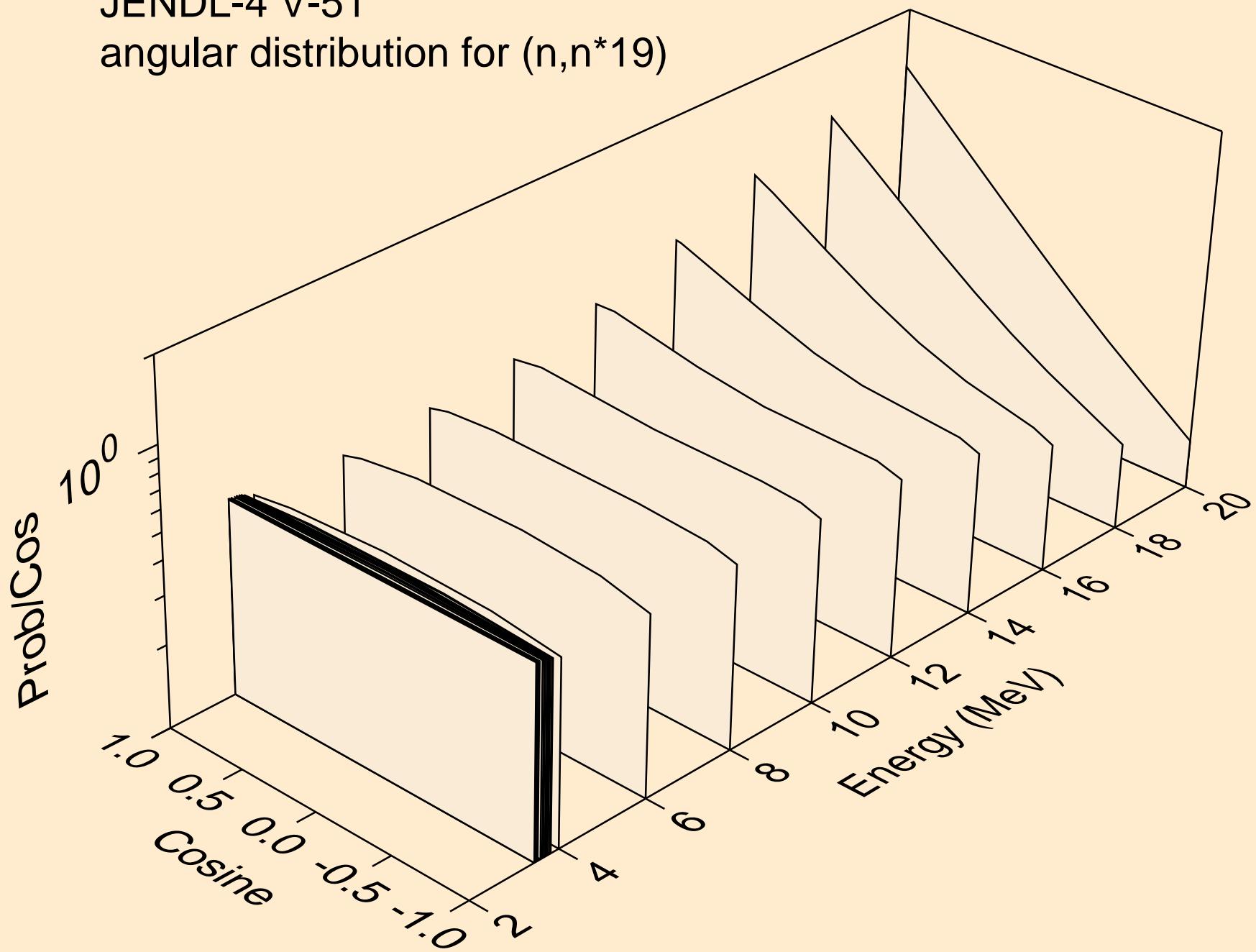
JENDL-4 V-51  
angular distribution for (n,n\*17)



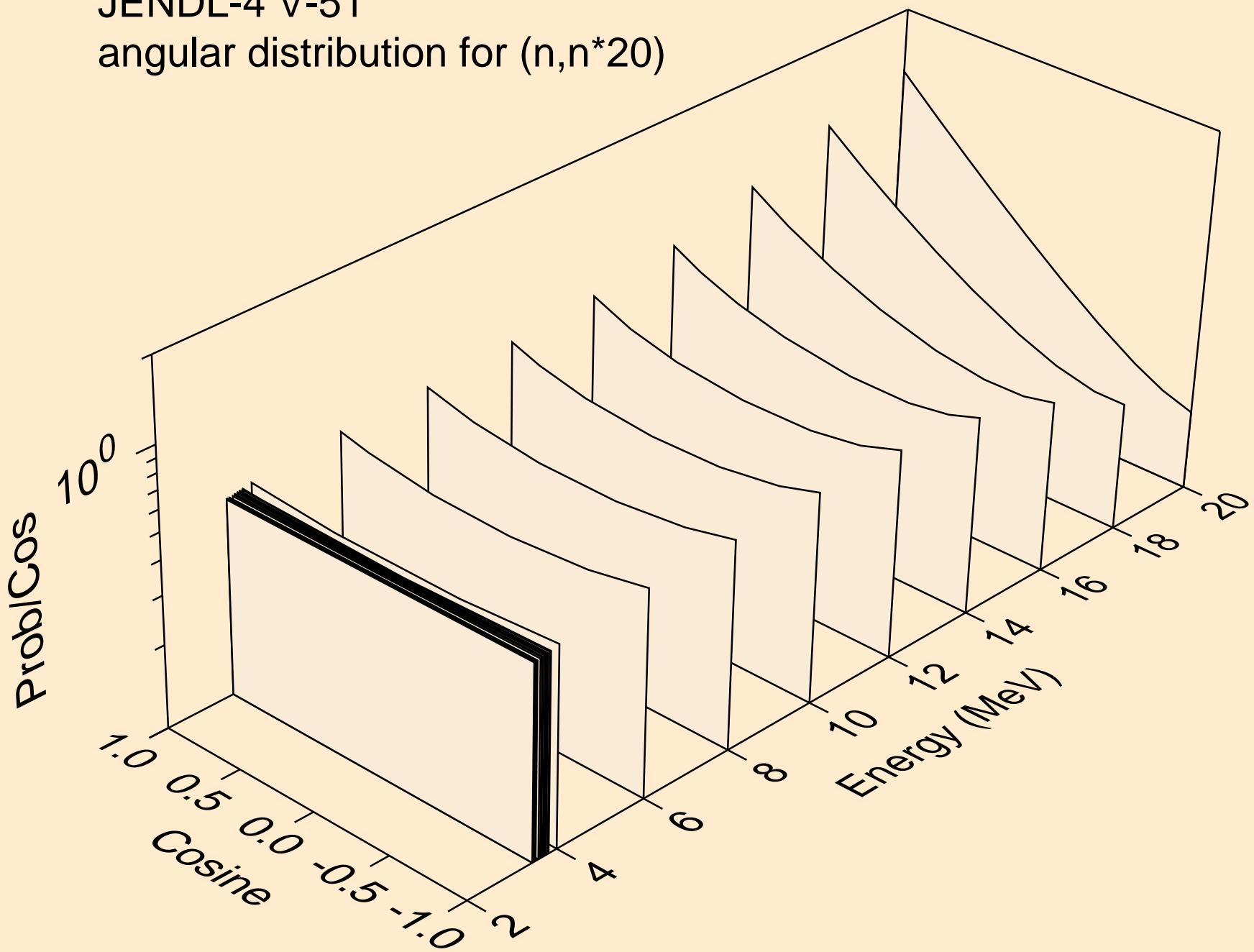
JENDL-4 V-51  
angular distribution for (n,n\*18)



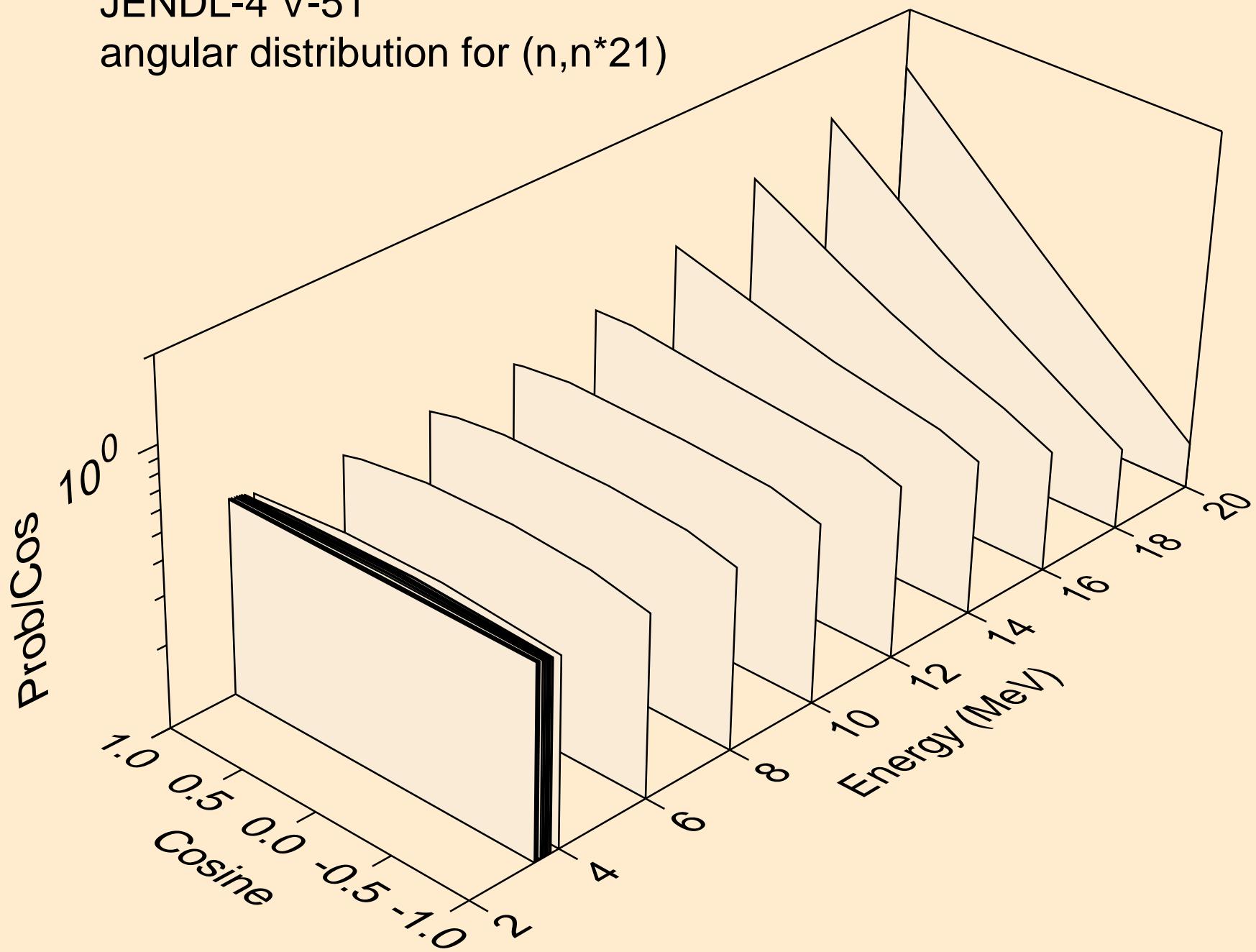
JENDL-4 V-51  
angular distribution for (n,n\*19)



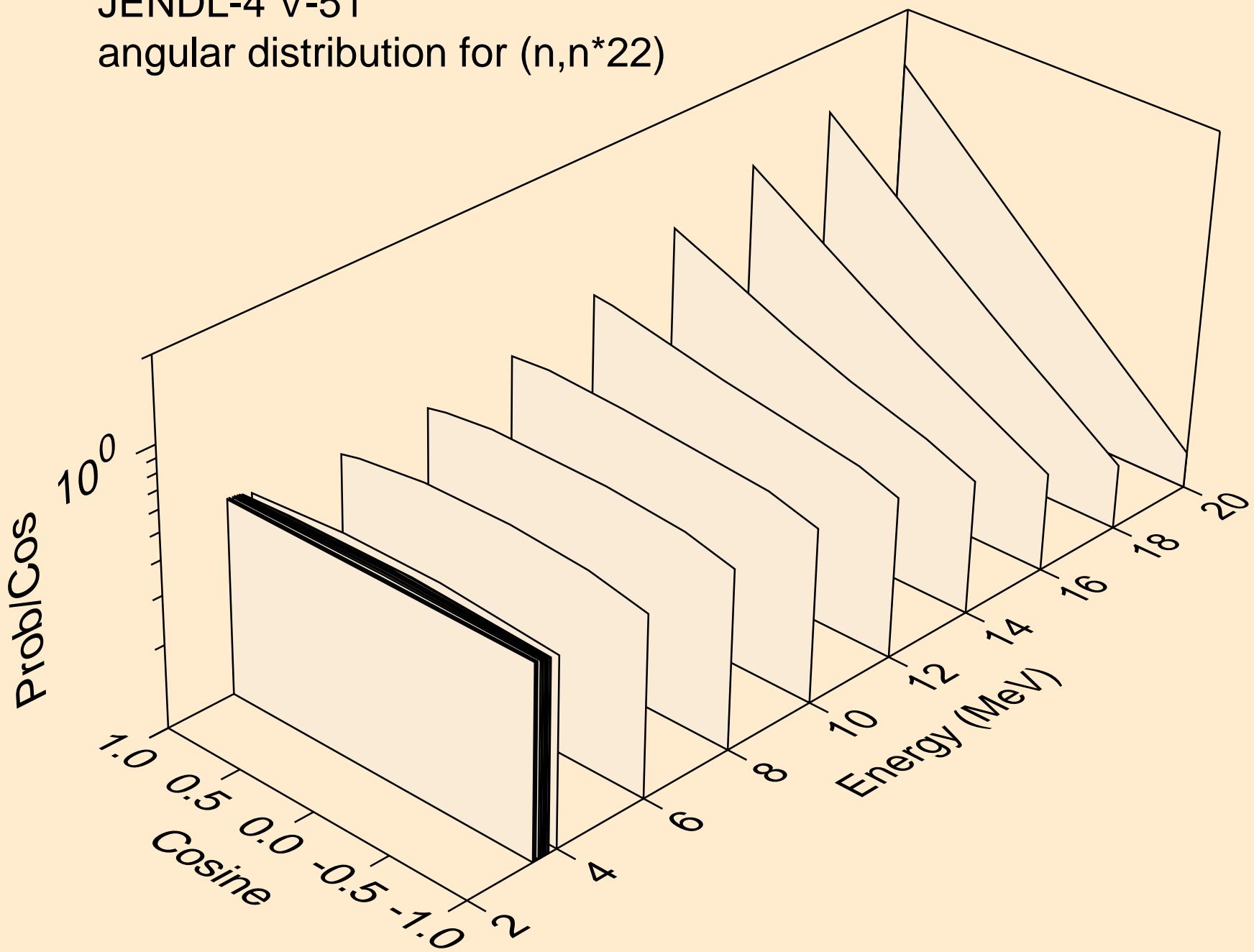
JENDL-4 V-51  
angular distribution for  $(n,n^*20)$



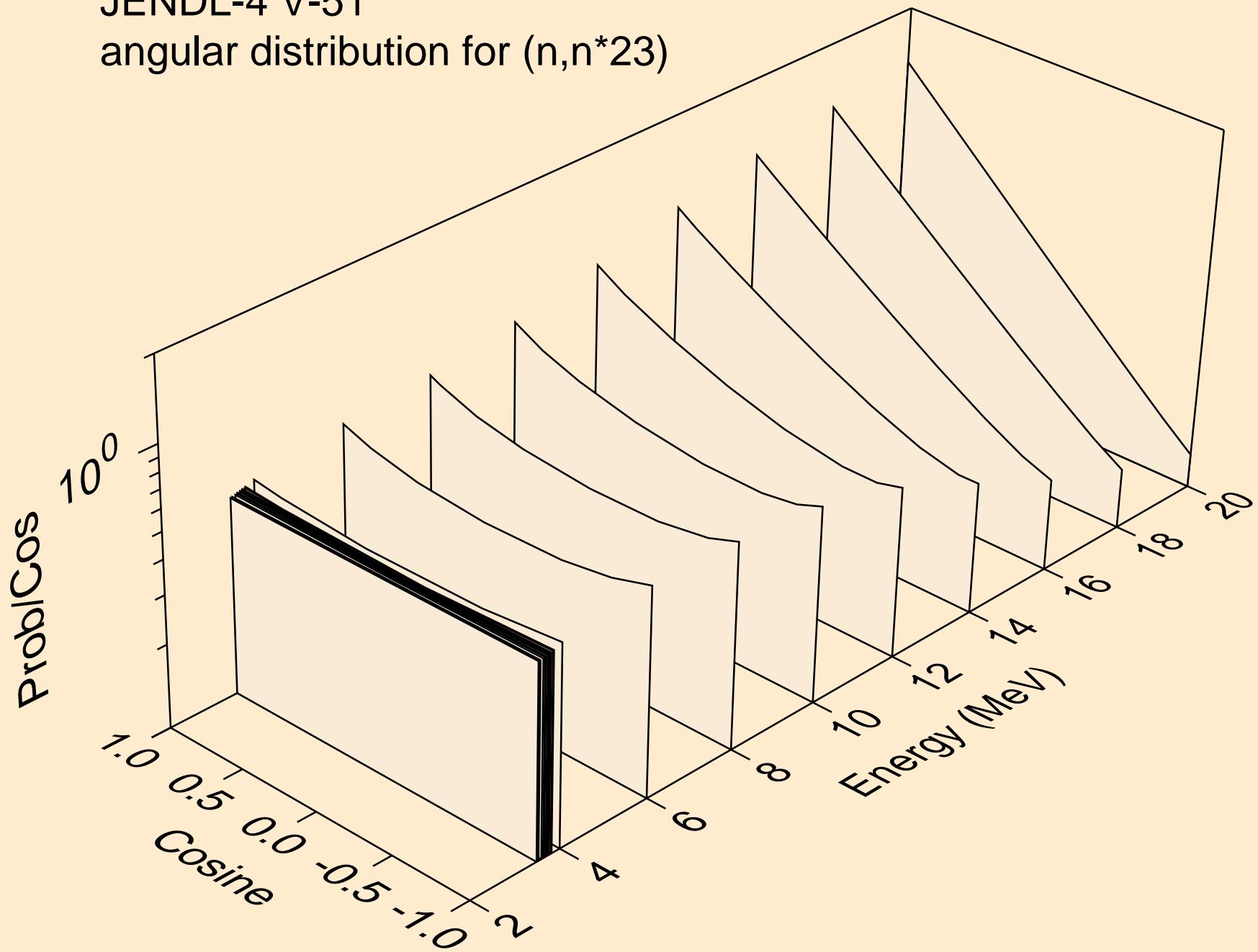
JENDL-4 V-51  
angular distribution for (n,n\*21)



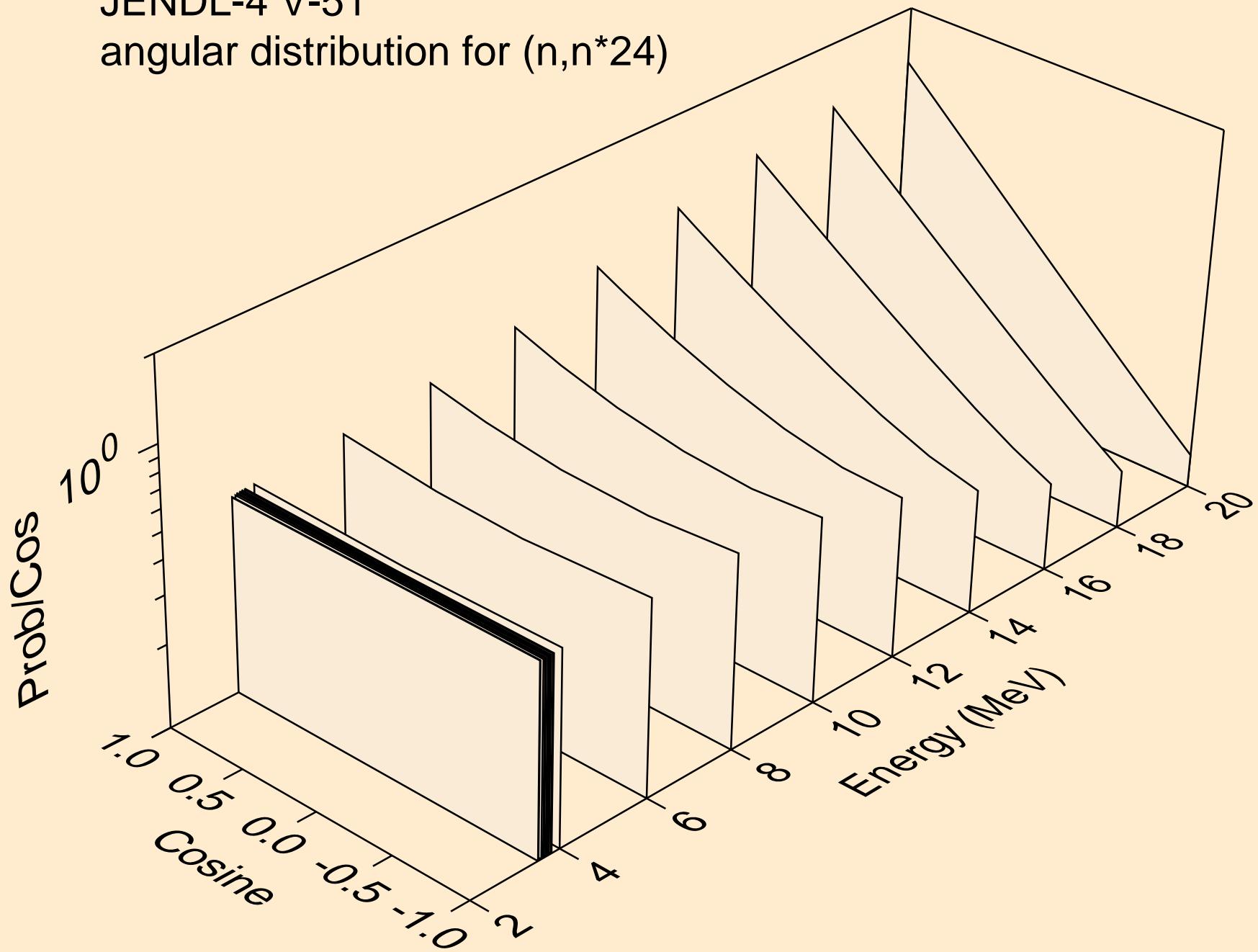
JENDL-4 V-51  
angular distribution for  $(n,n^*22)$



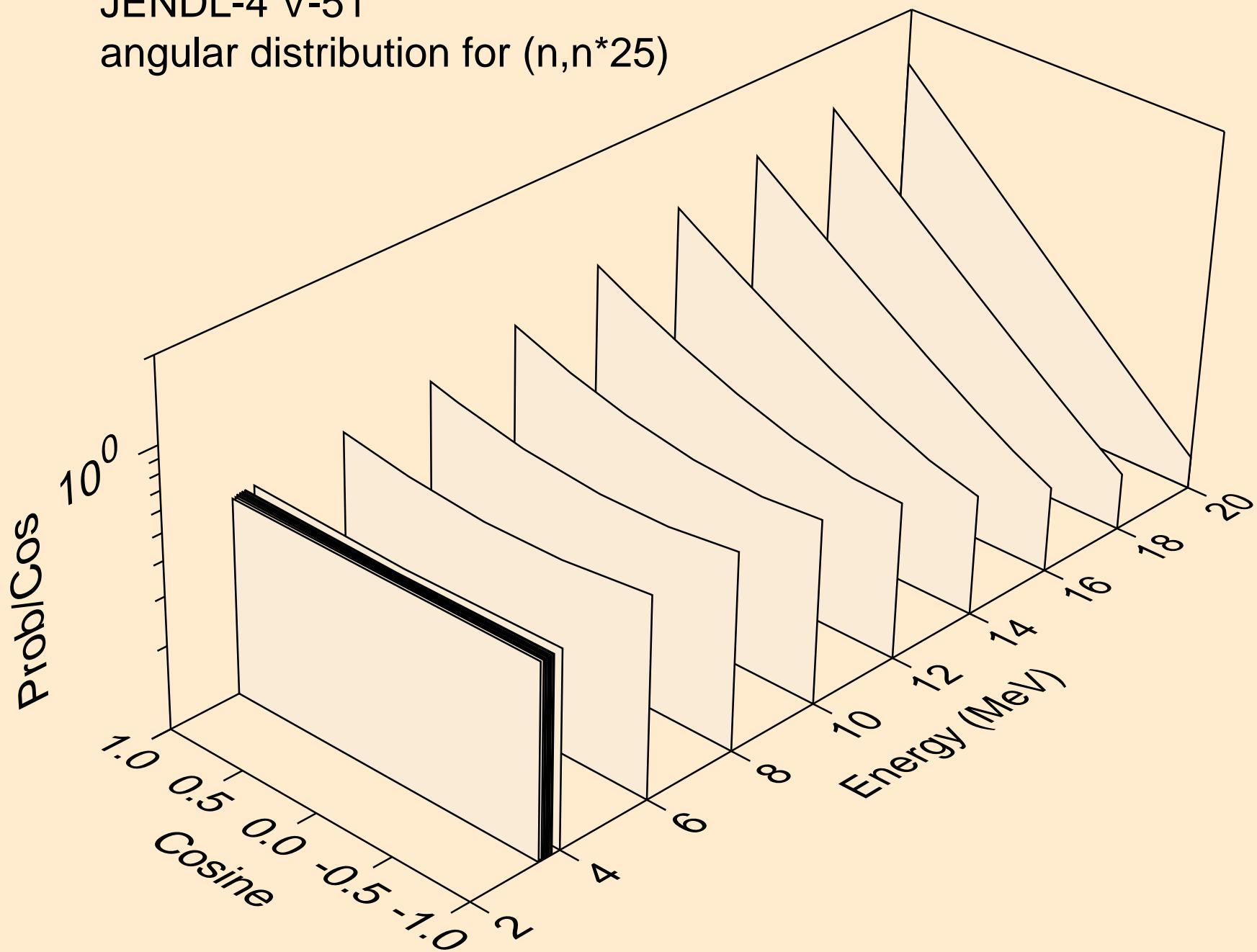
JENDL-4 V-51  
angular distribution for (n,n\*23)



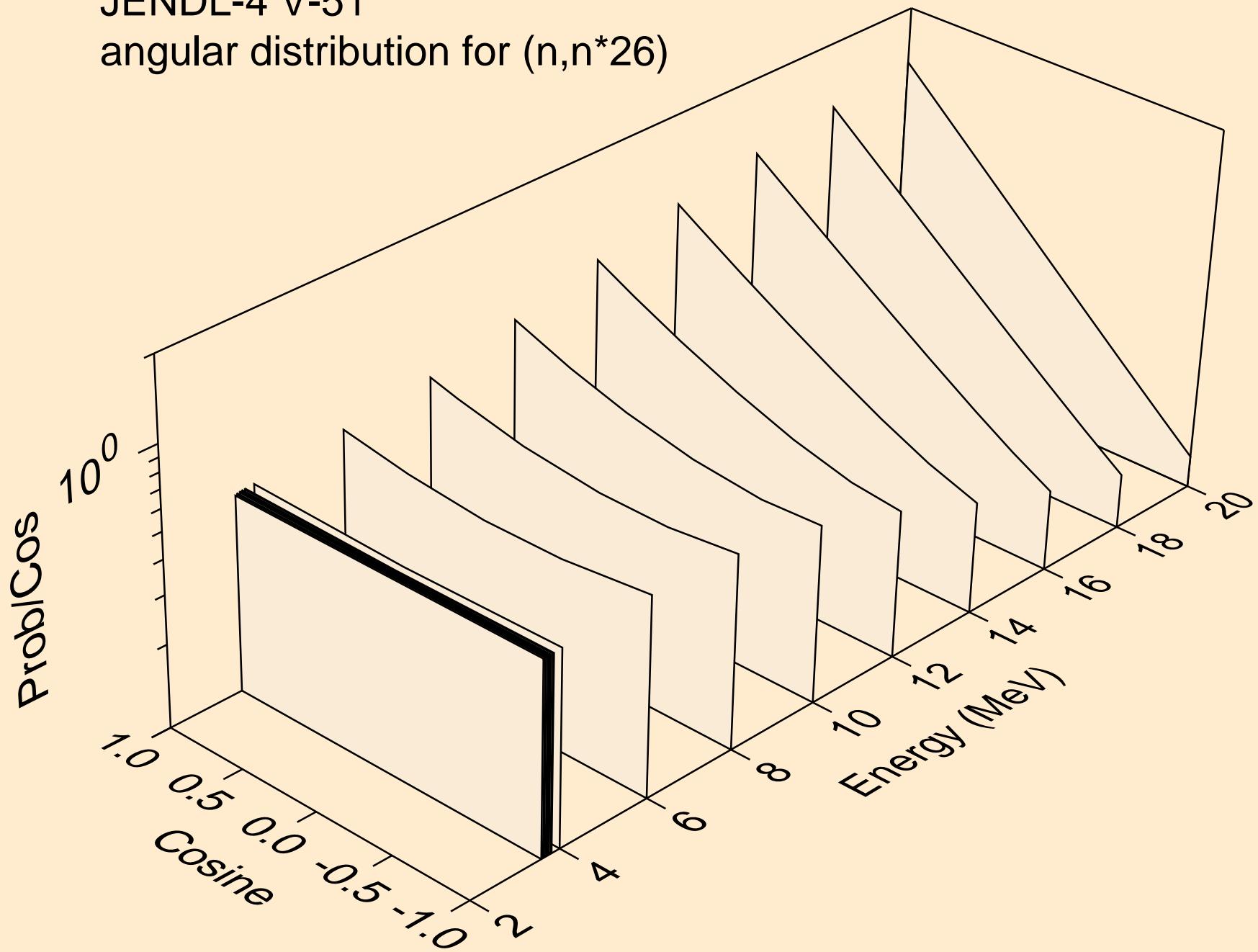
JENDL-4 V-51  
angular distribution for (n,n\*24)



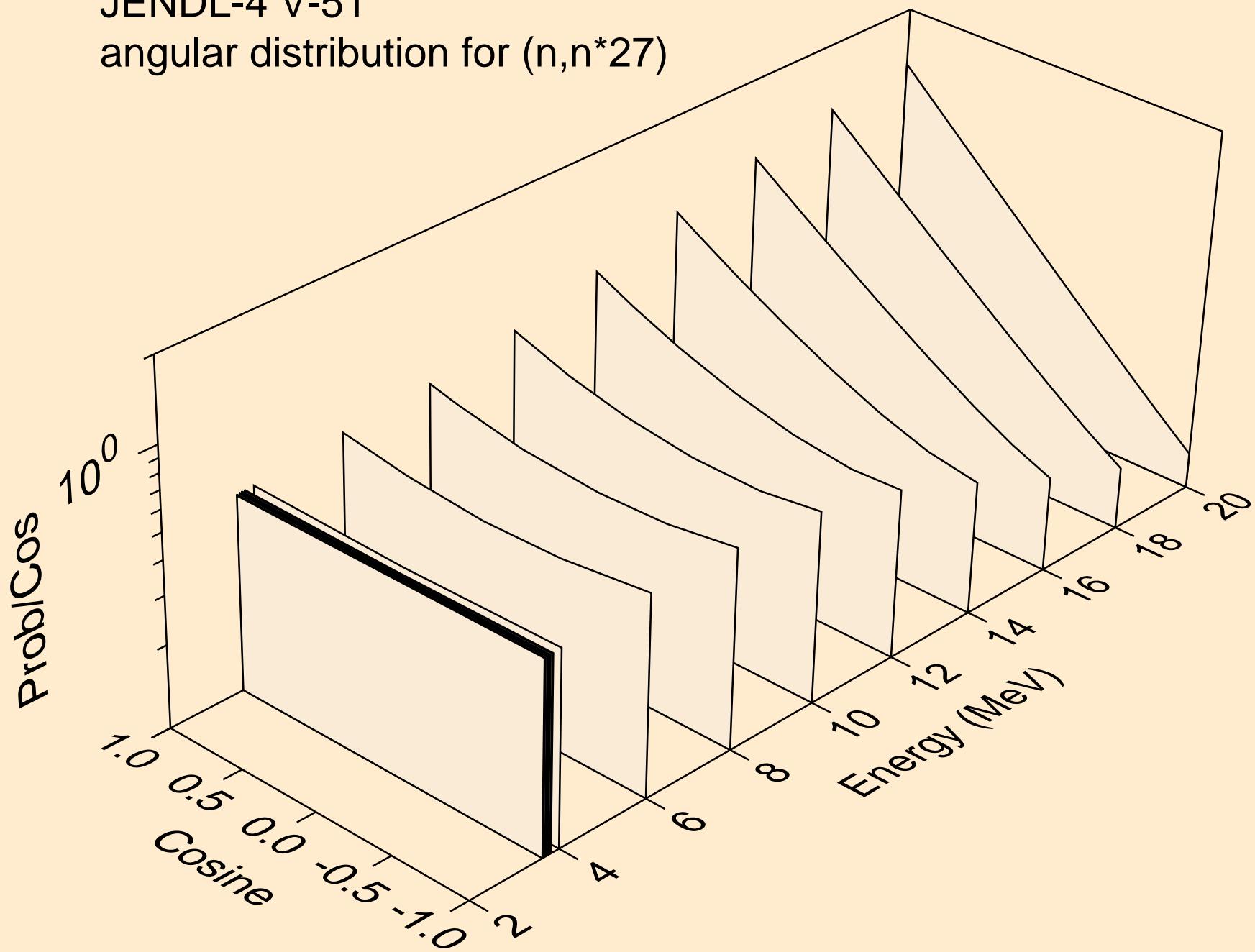
JENDL-4 V-51  
angular distribution for (n,n\*25)



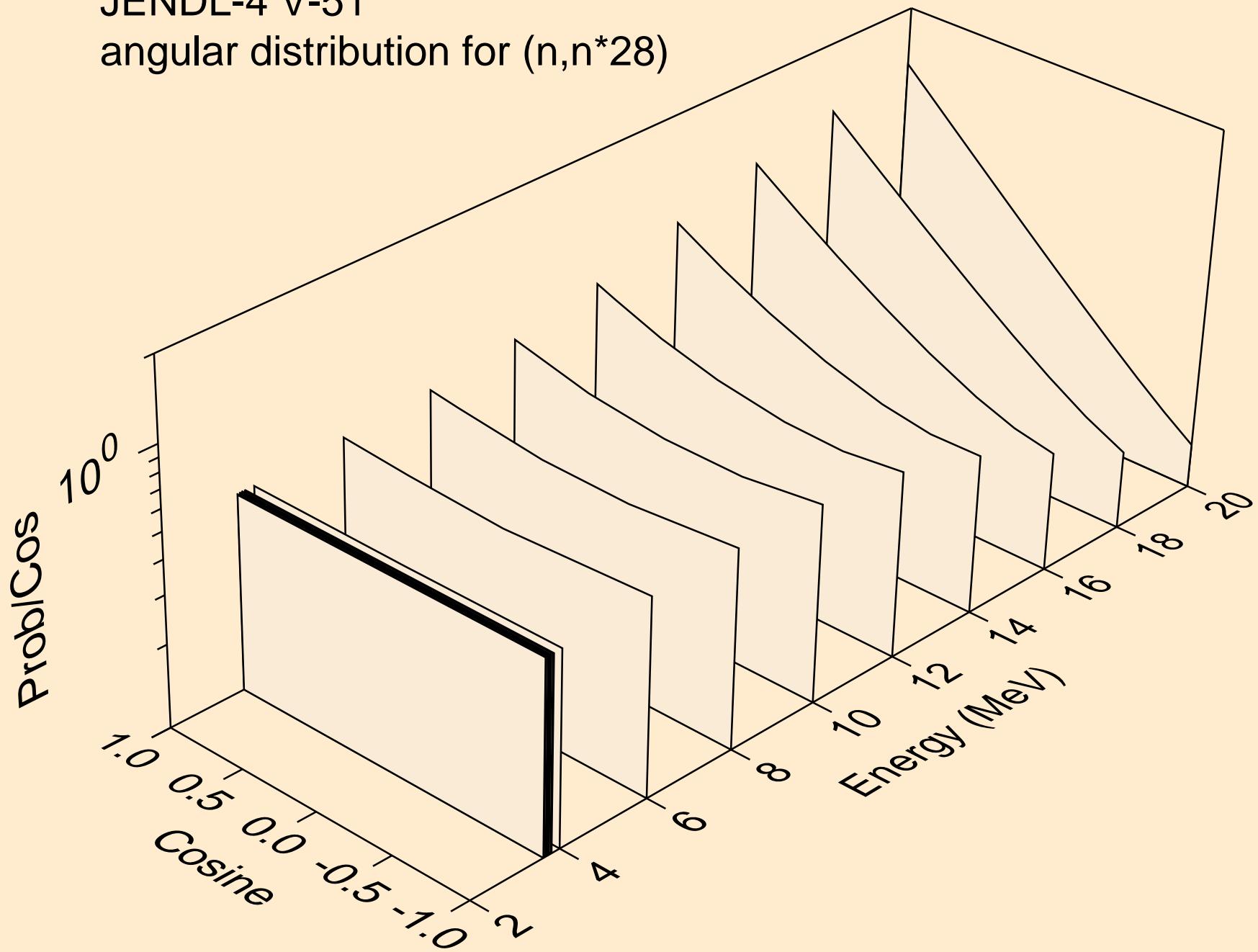
JENDL-4 V-51  
angular distribution for (n,n\*26)



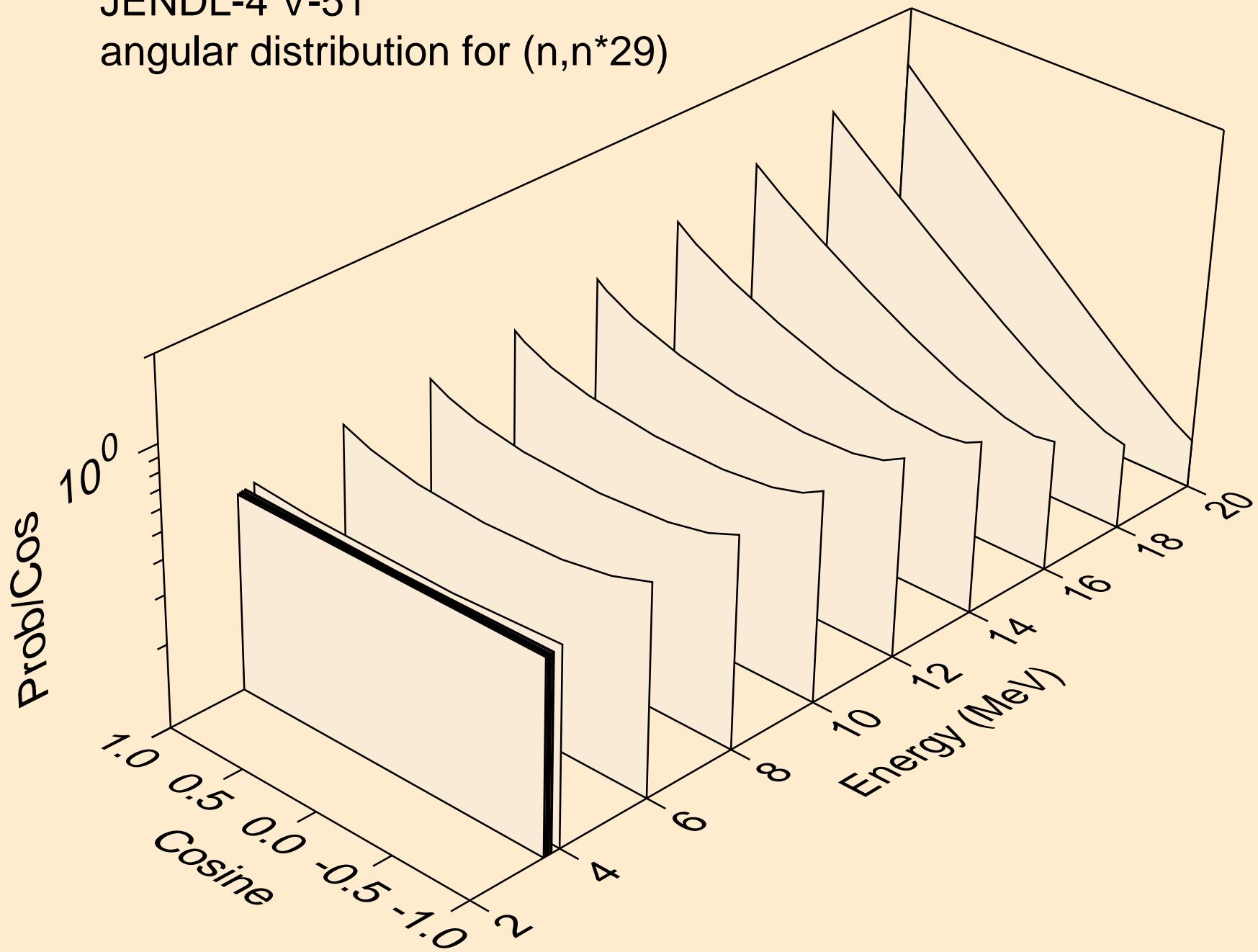
JENDL-4 V-51  
angular distribution for  $(n,n^*27)$



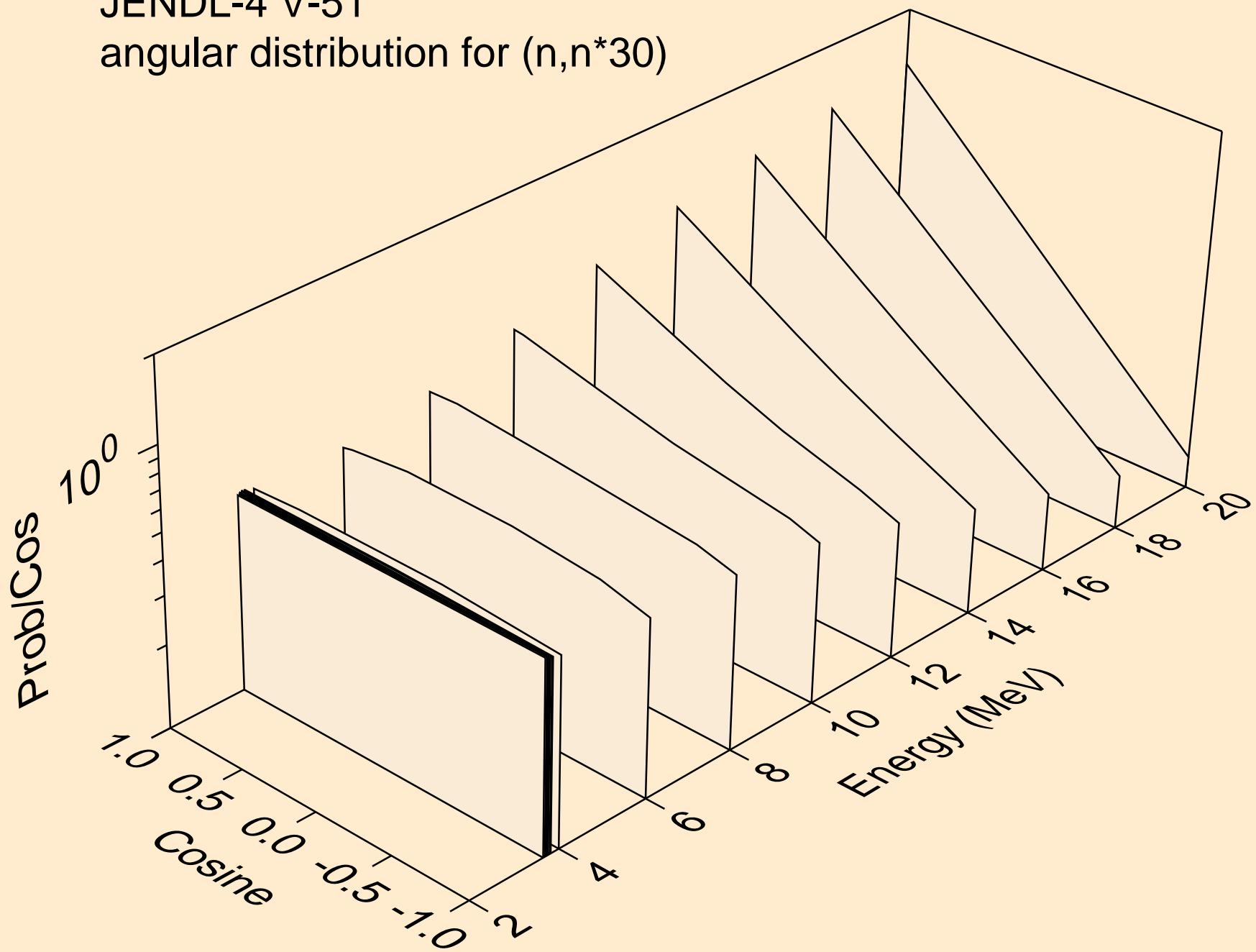
JENDL-4 V-51  
angular distribution for (n,n\*28)



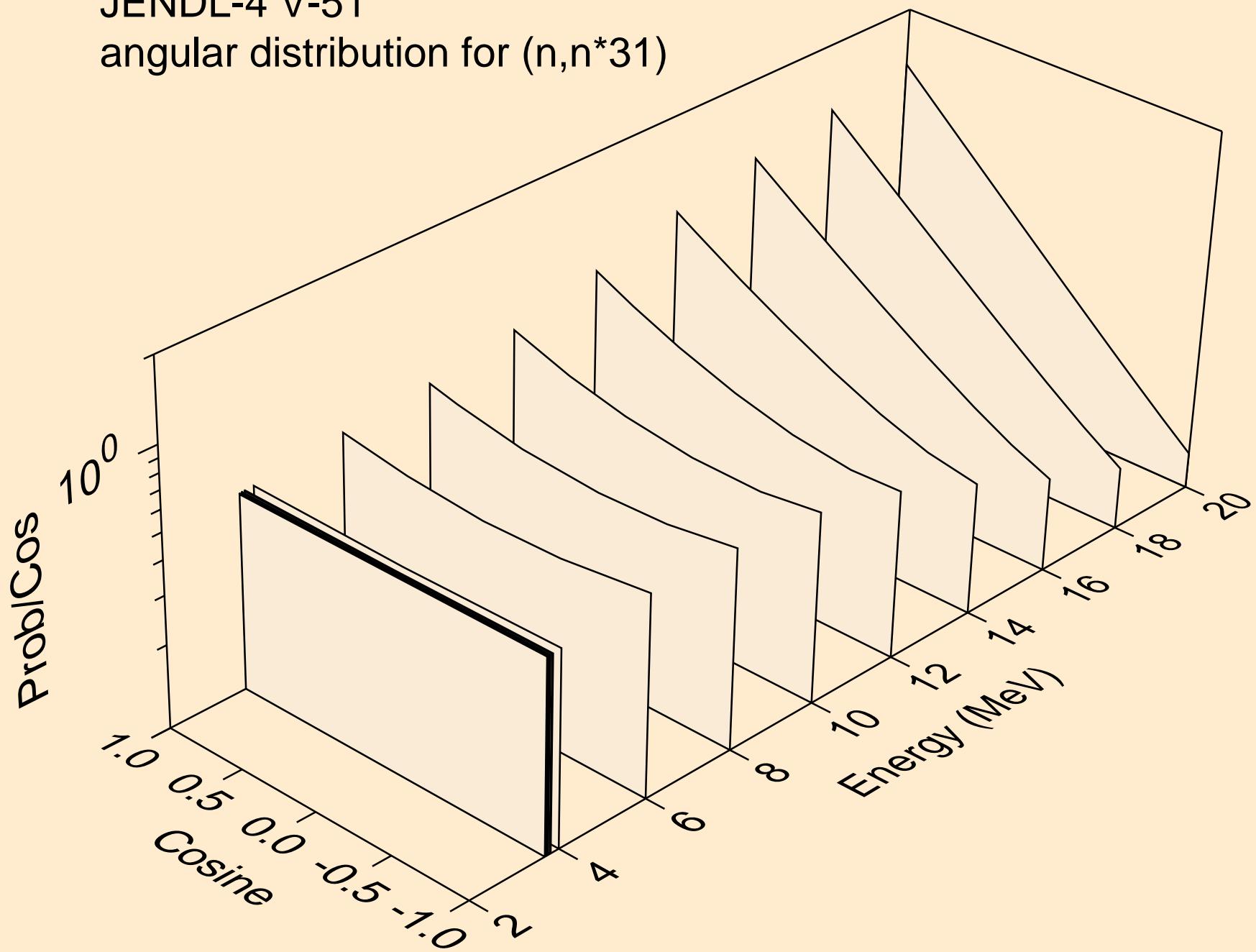
JENDL-4 V-51  
angular distribution for  $(n,n^*29)$



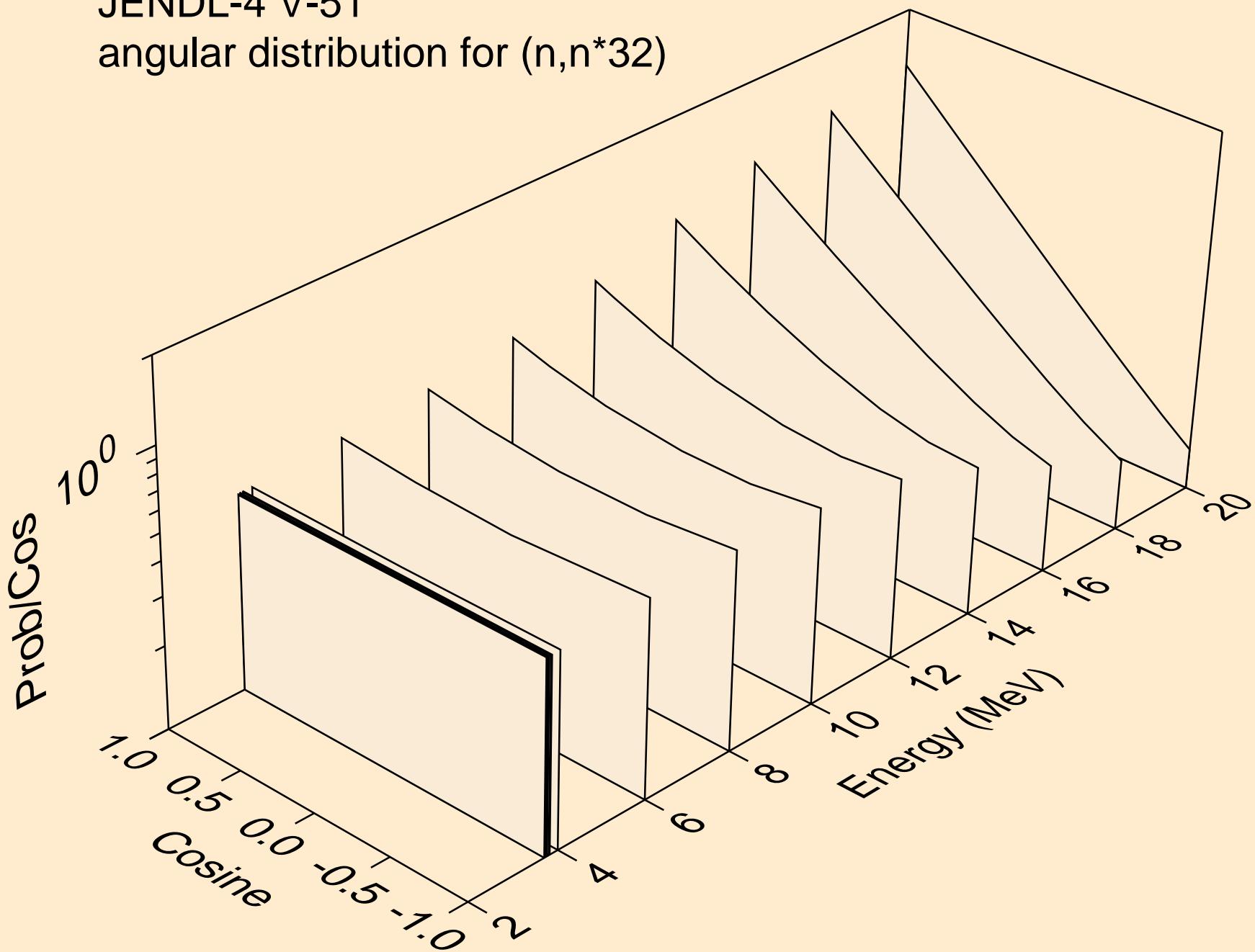
JENDL-4 V-51  
angular distribution for (n,n\*30)



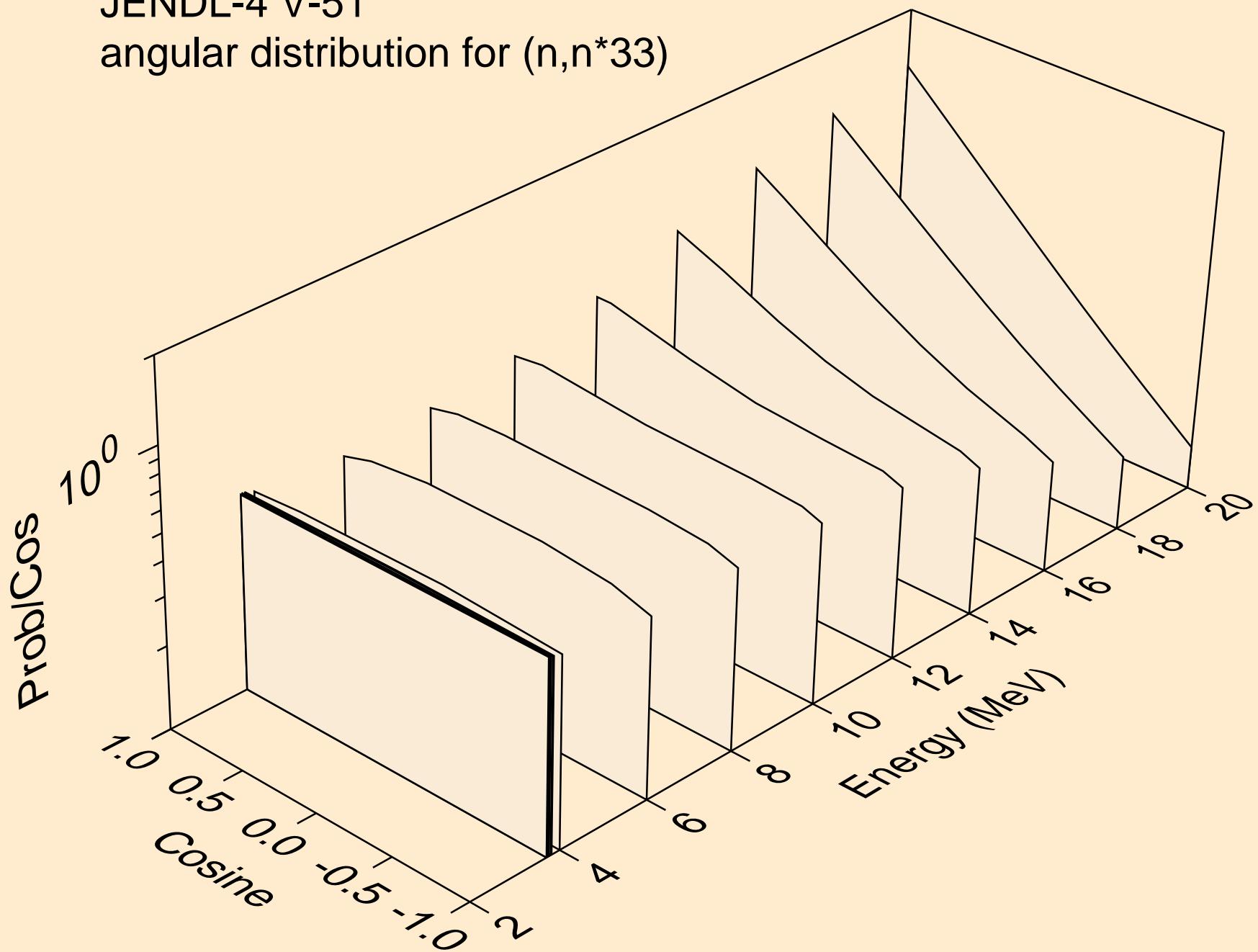
JENDL-4 V-51  
angular distribution for ( $n,n^*$ 31)



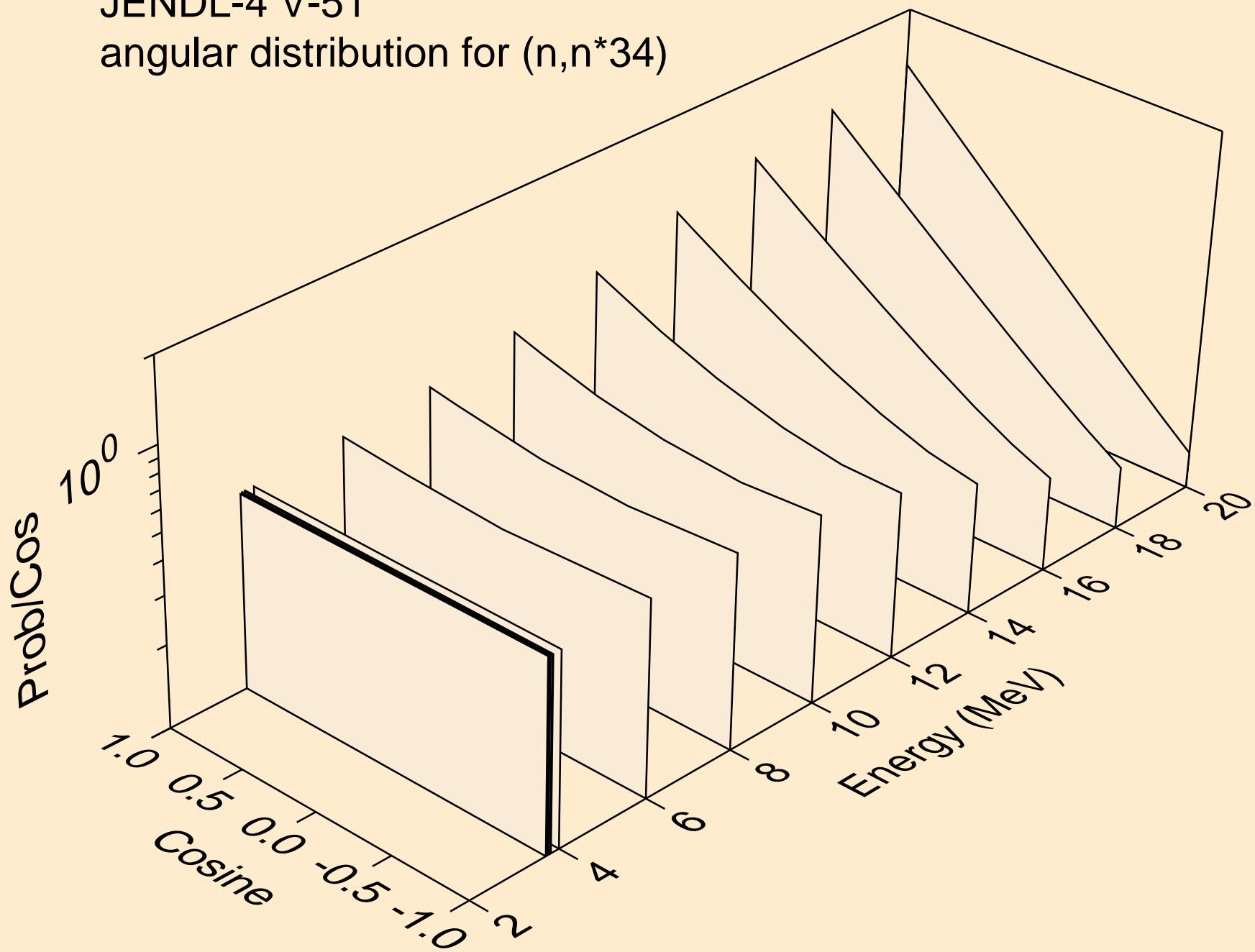
JENDL-4 V-51  
angular distribution for (n,n\*32)



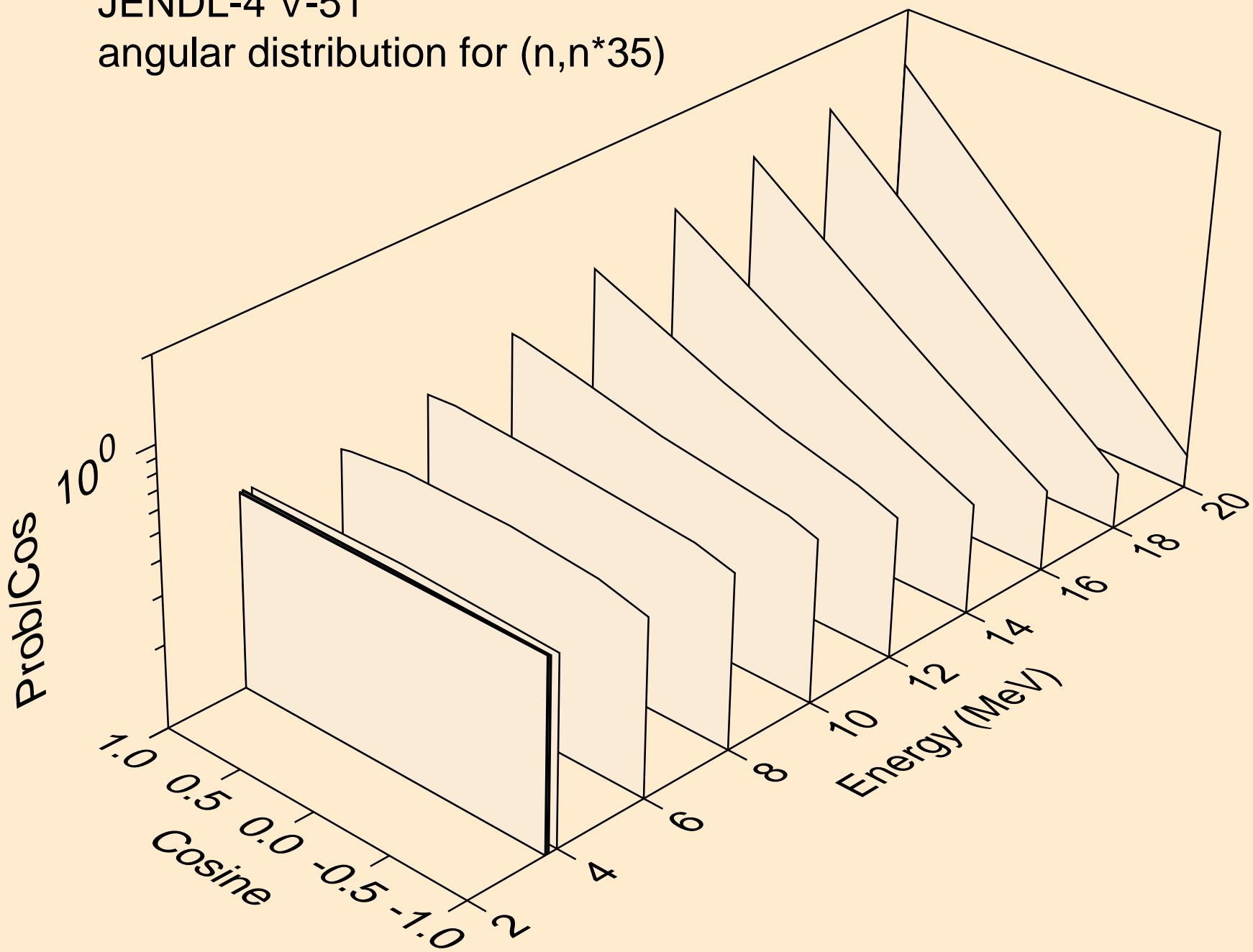
JENDL-4 V-51  
angular distribution for ( $n, n^* 33$ )



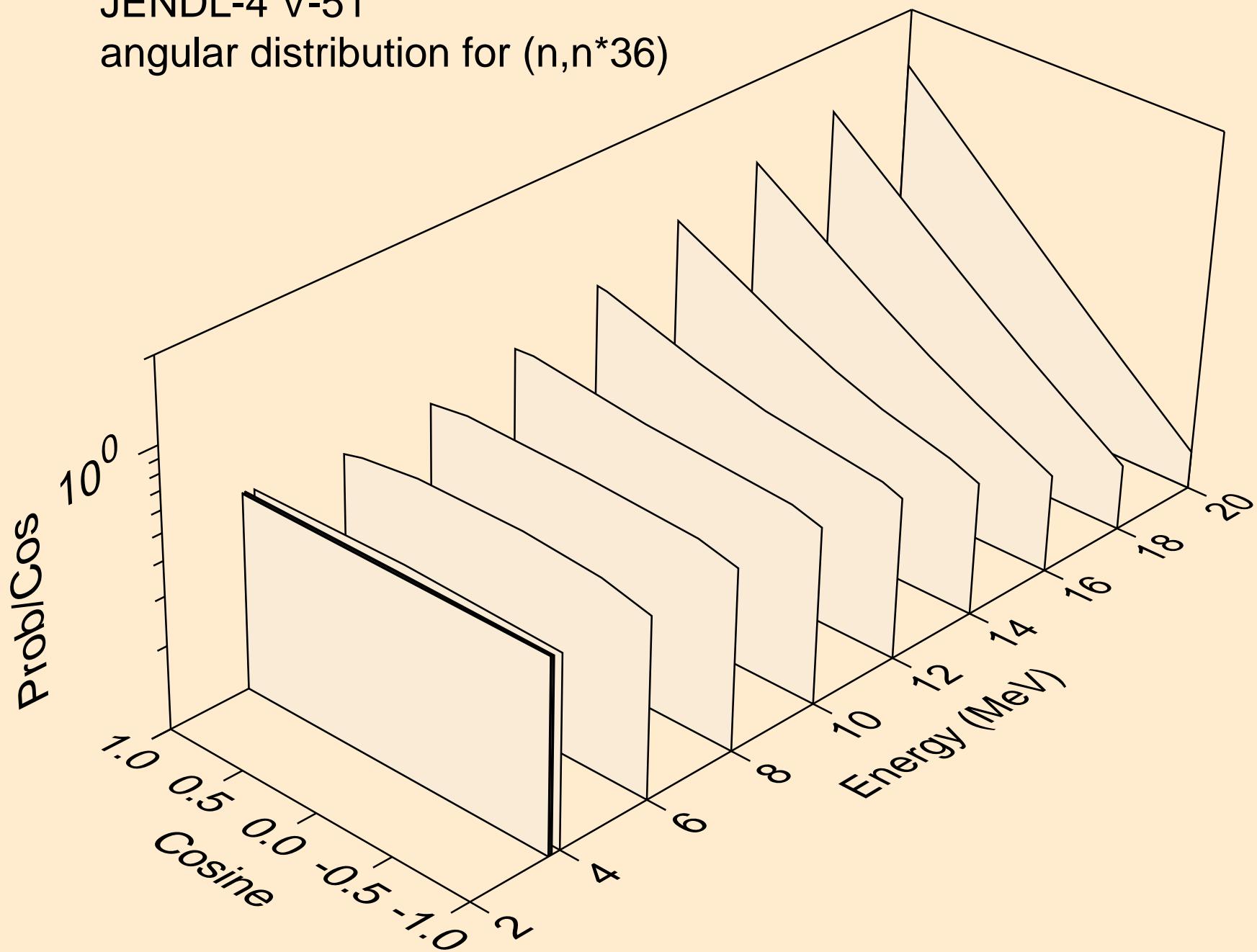
JENDL-4 V-51  
angular distribution for ( $n,n^*$ )34



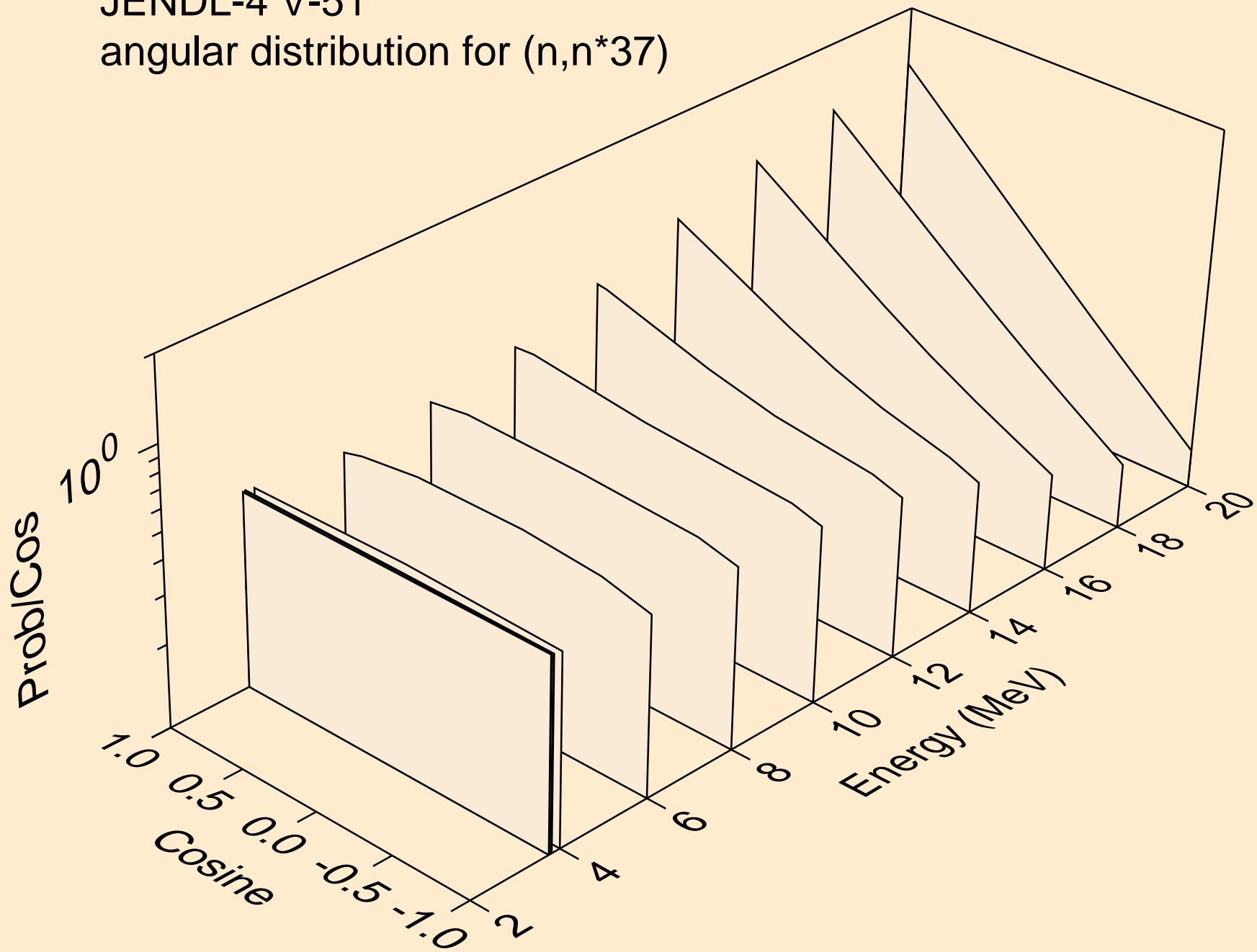
JENDL-4 V-51  
angular distribution for (n,n\*35)



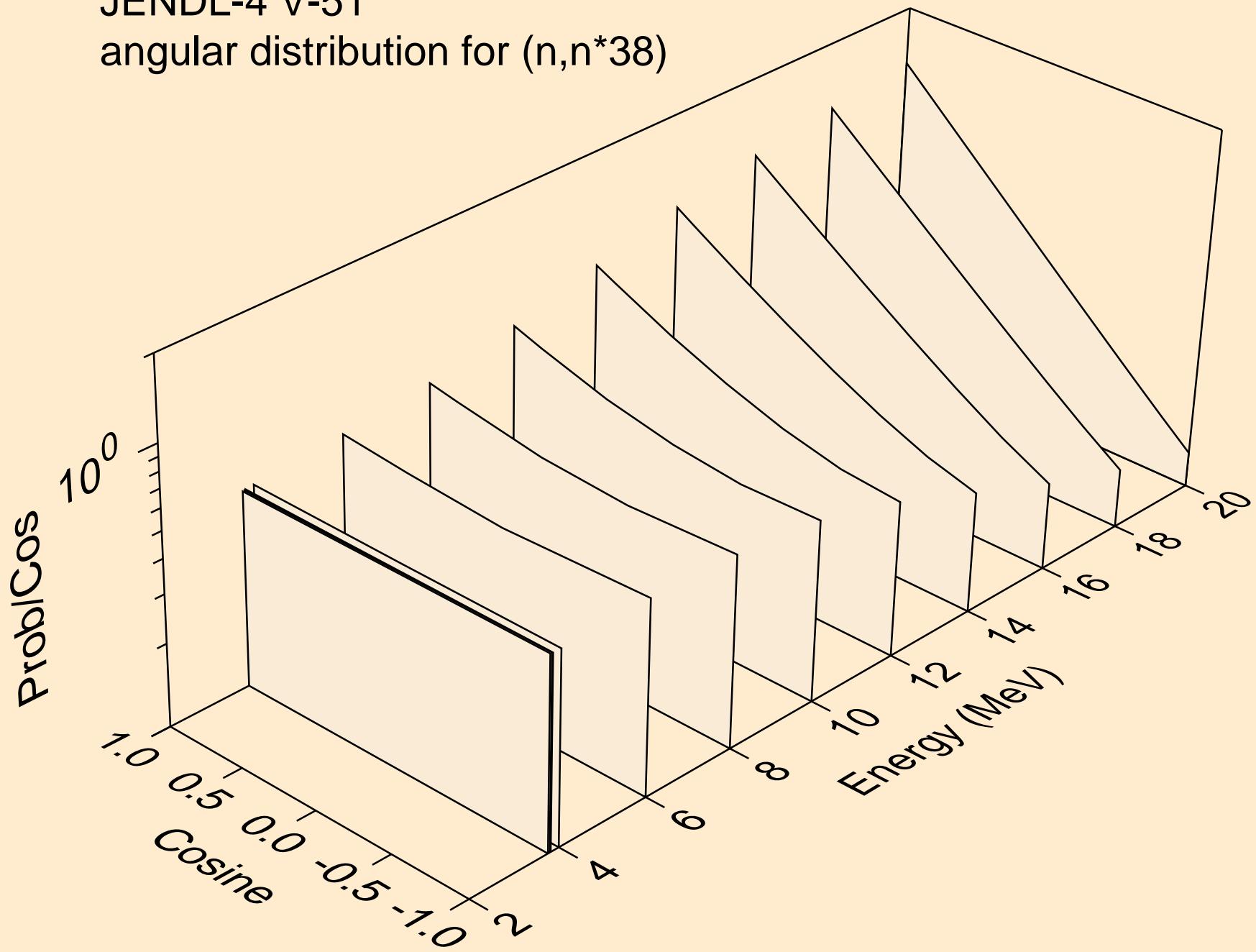
JENDL-4 V-51  
angular distribution for (n,n\*36)



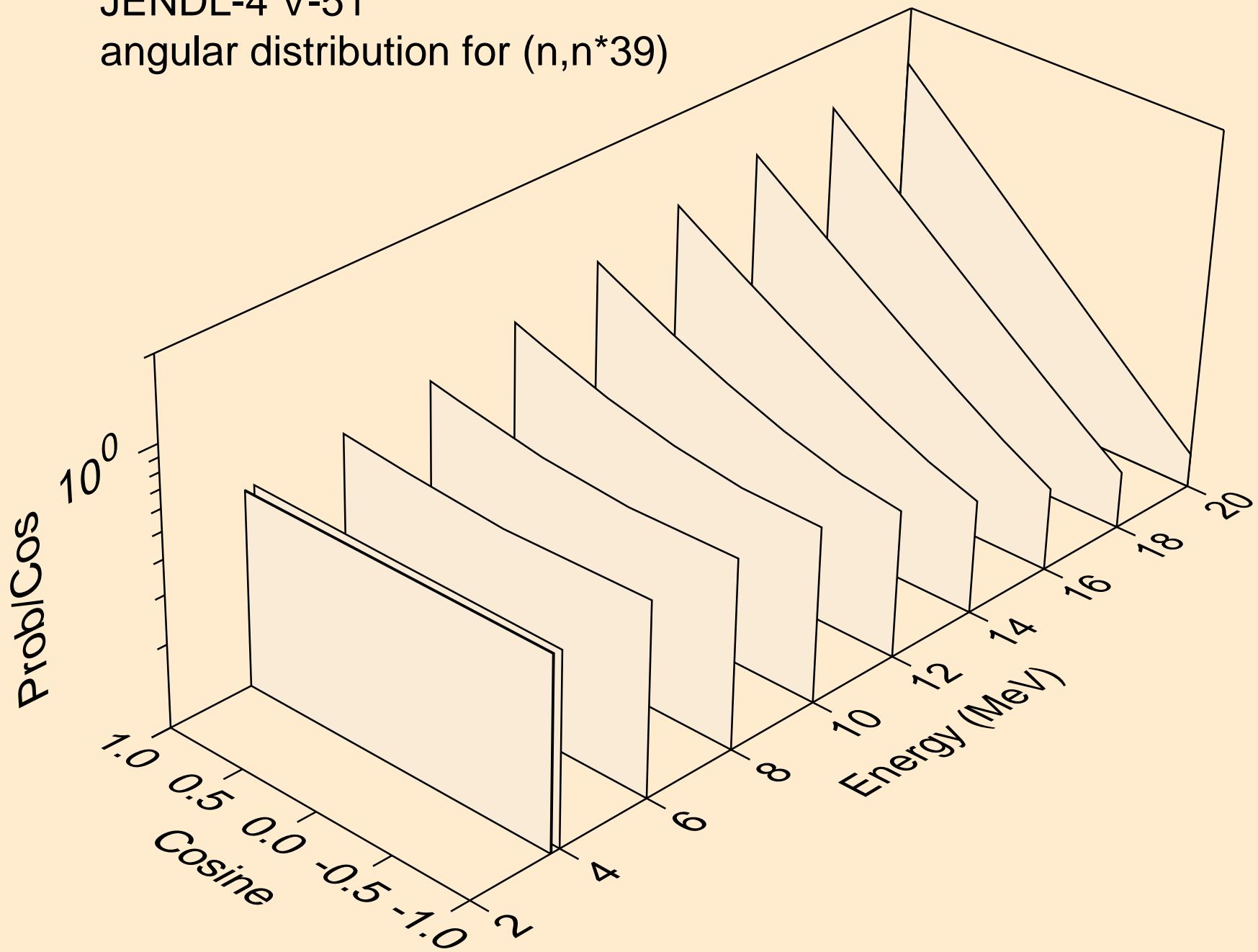
JENDL-4 V-51  
angular distribution for (n,n\*37)



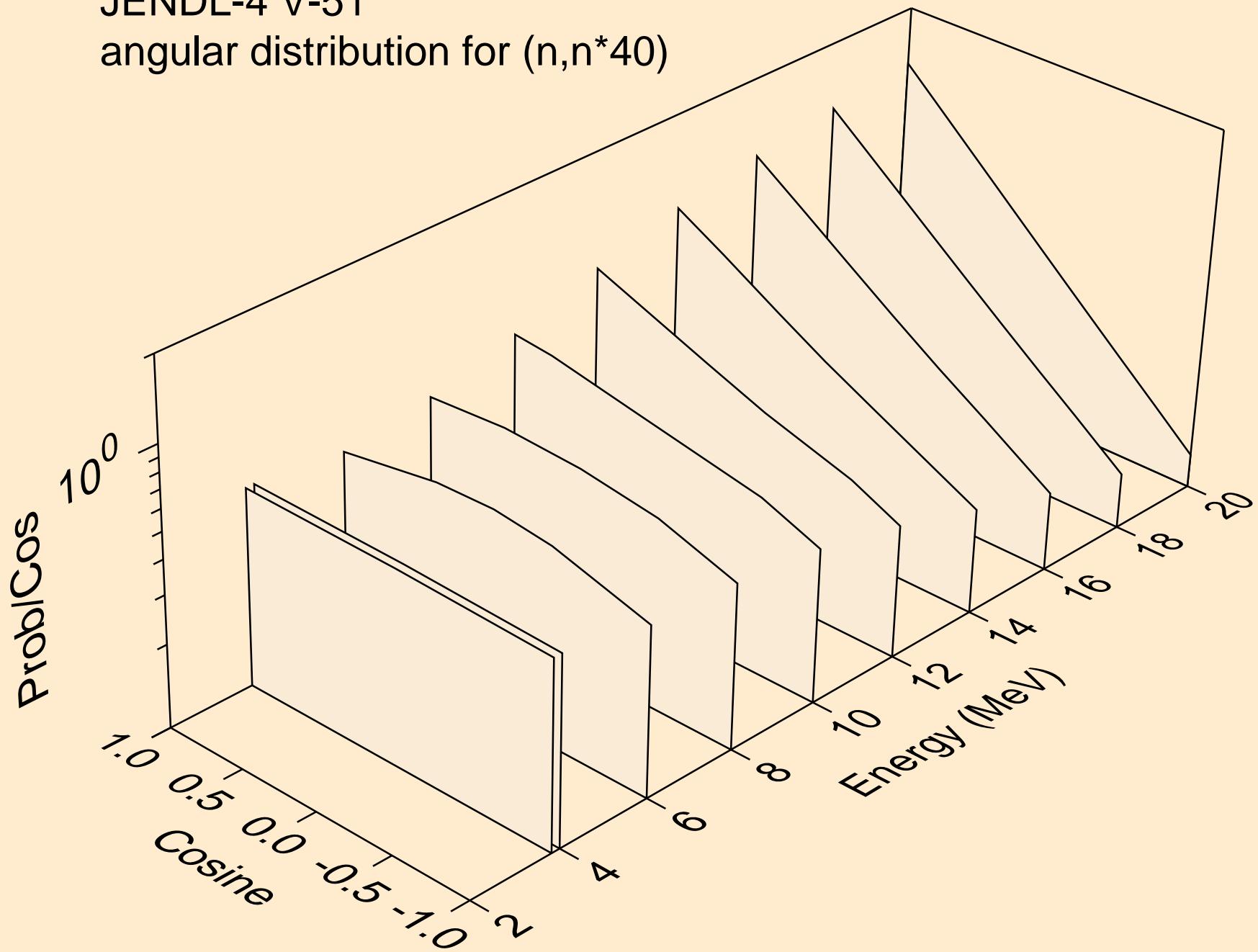
JENDL-4 V-51  
angular distribution for (n,n\*38)



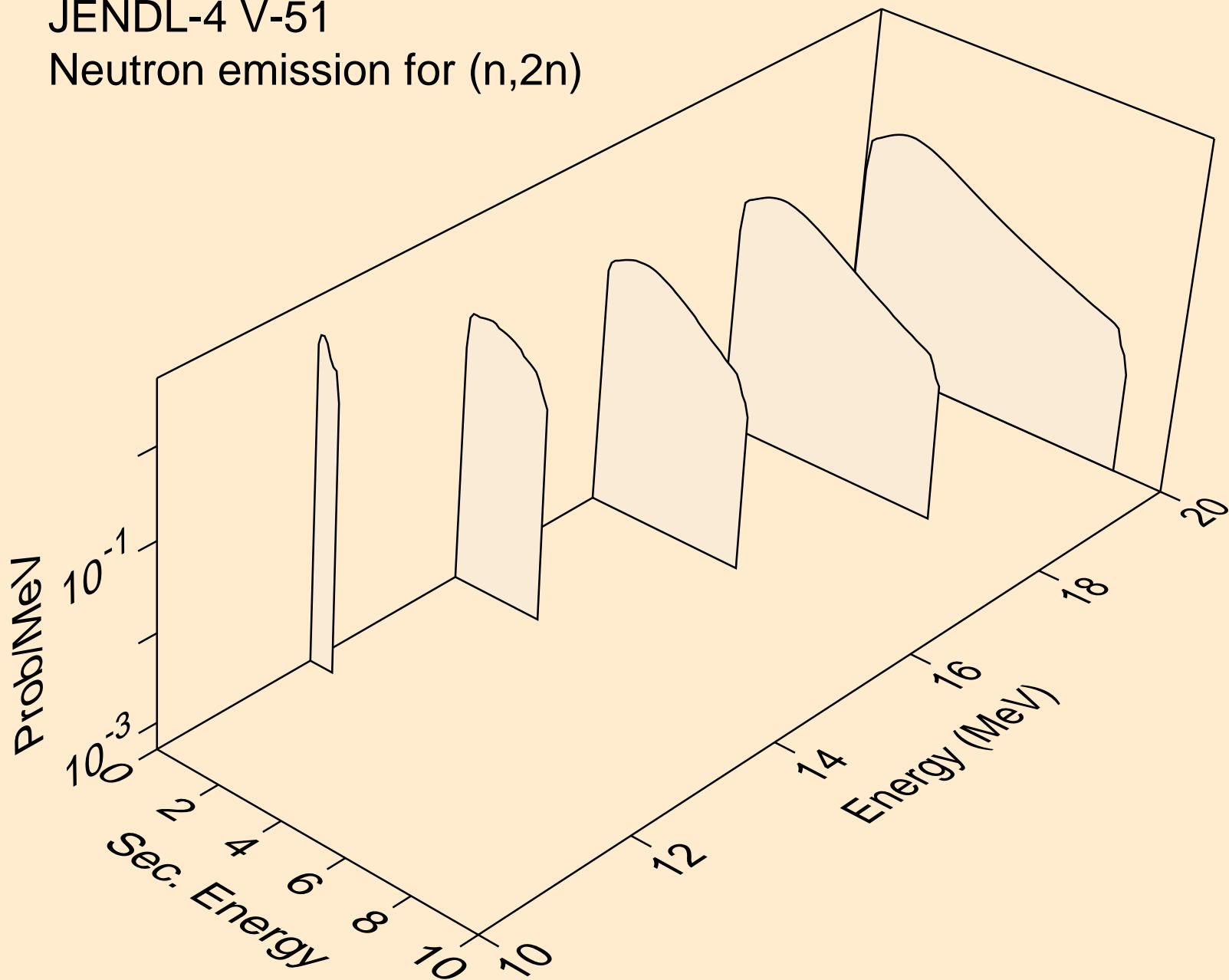
JENDL-4 V-51  
angular distribution for ( $n,n^*$ )39



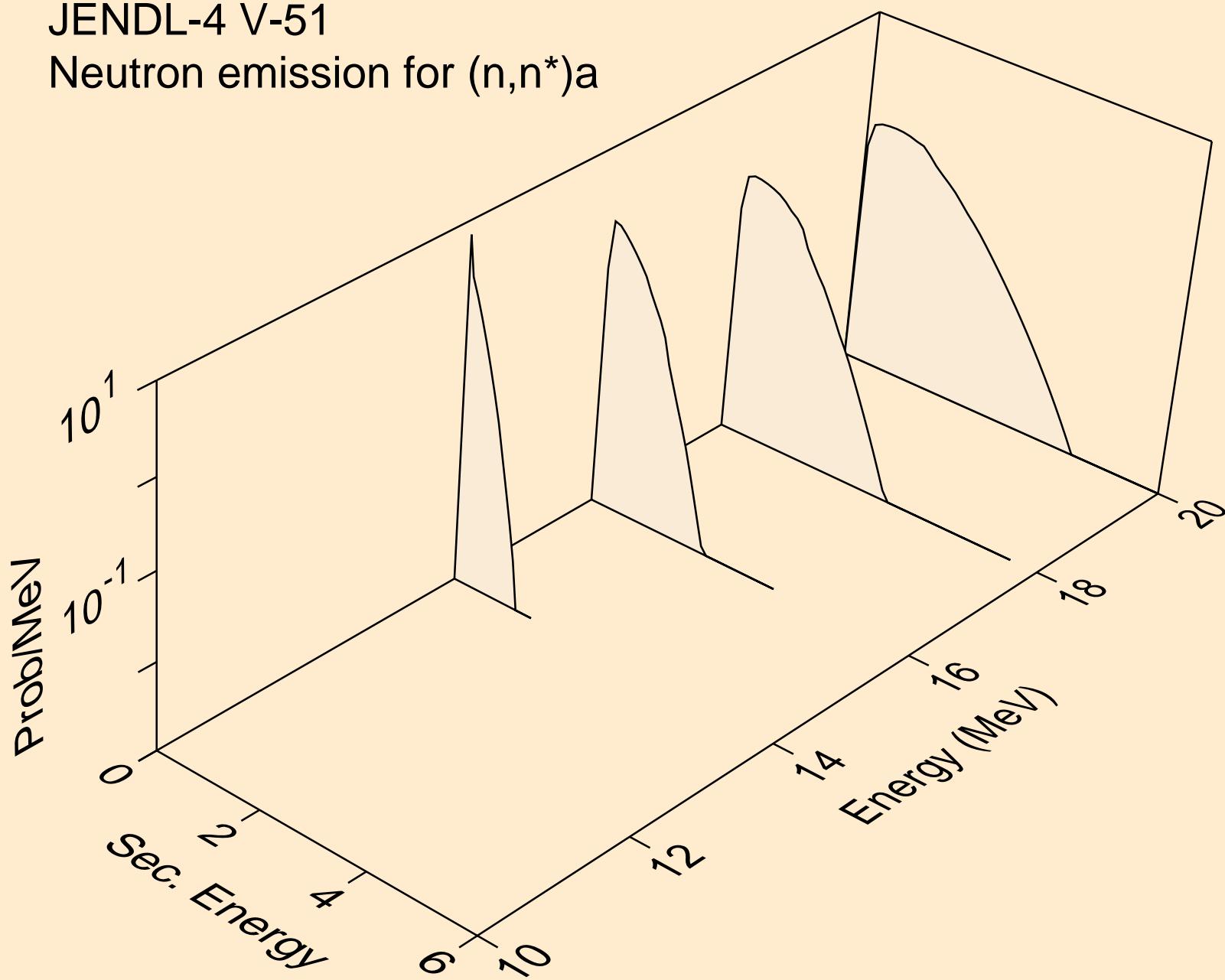
JENDL-4 V-51  
angular distribution for ( $n,n^*$ )40



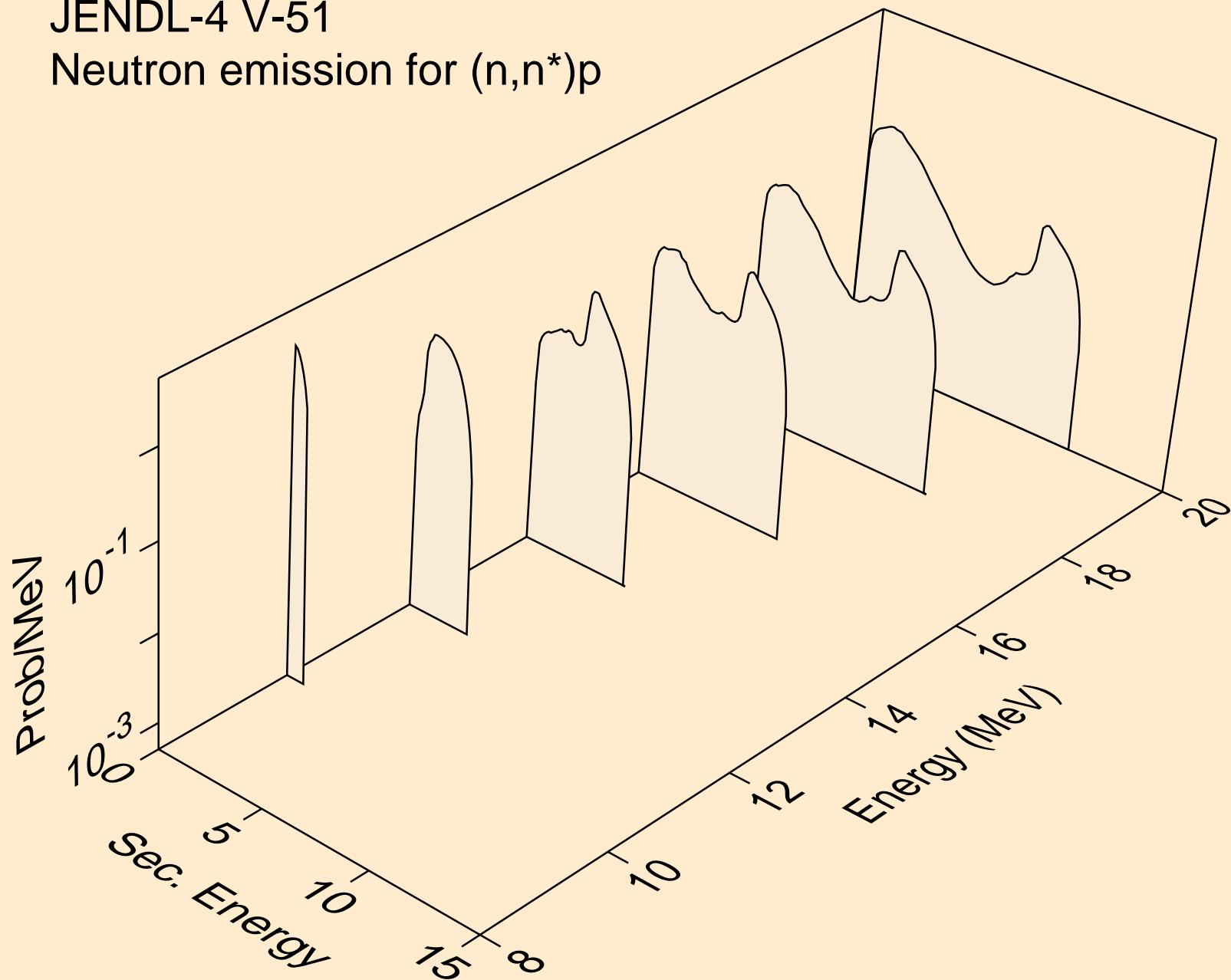
JENDL-4 V-51  
Neutron emission for  $(n,2n)$



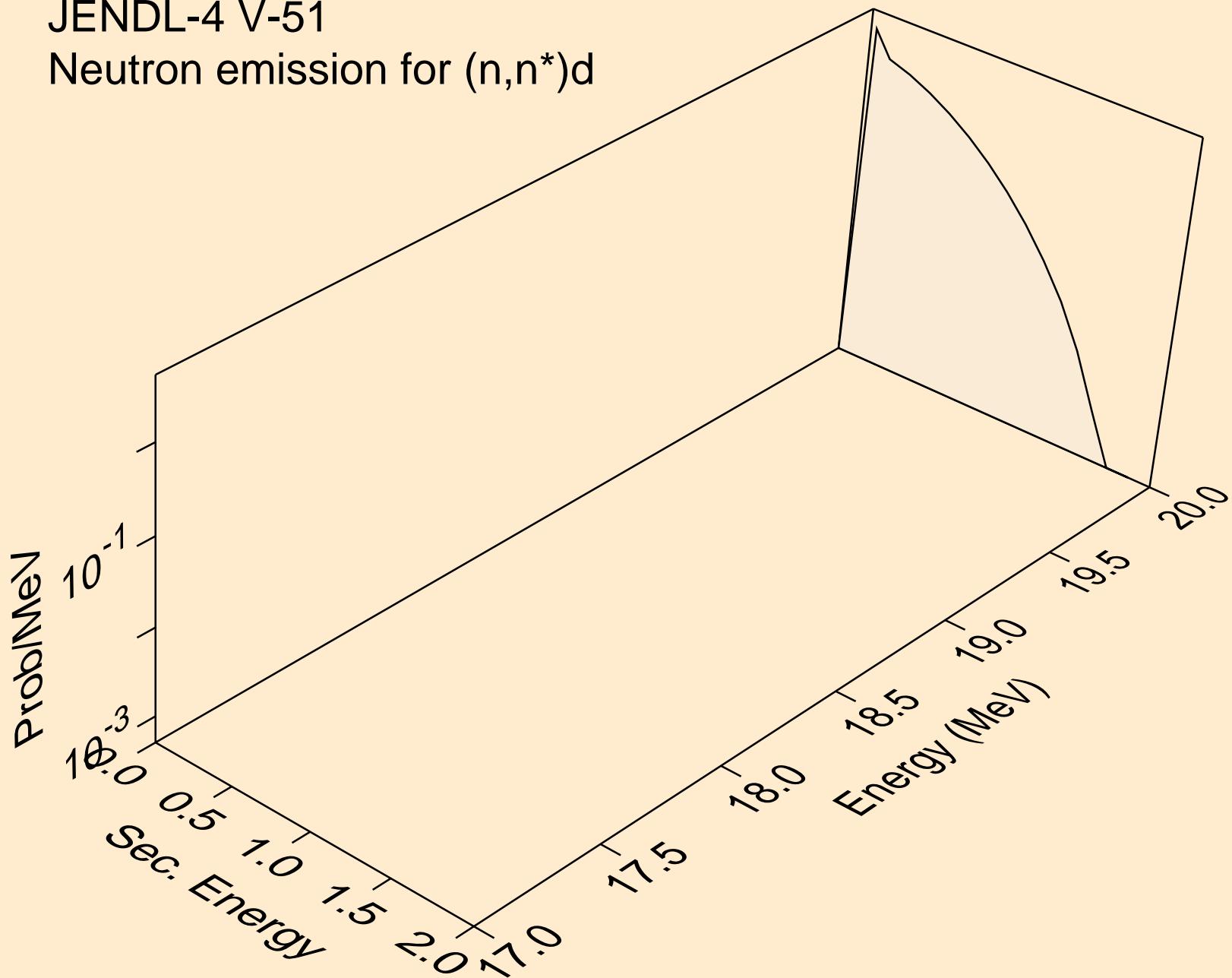
JENDL-4 V-51  
Neutron emission for  $(n,n^*)a$



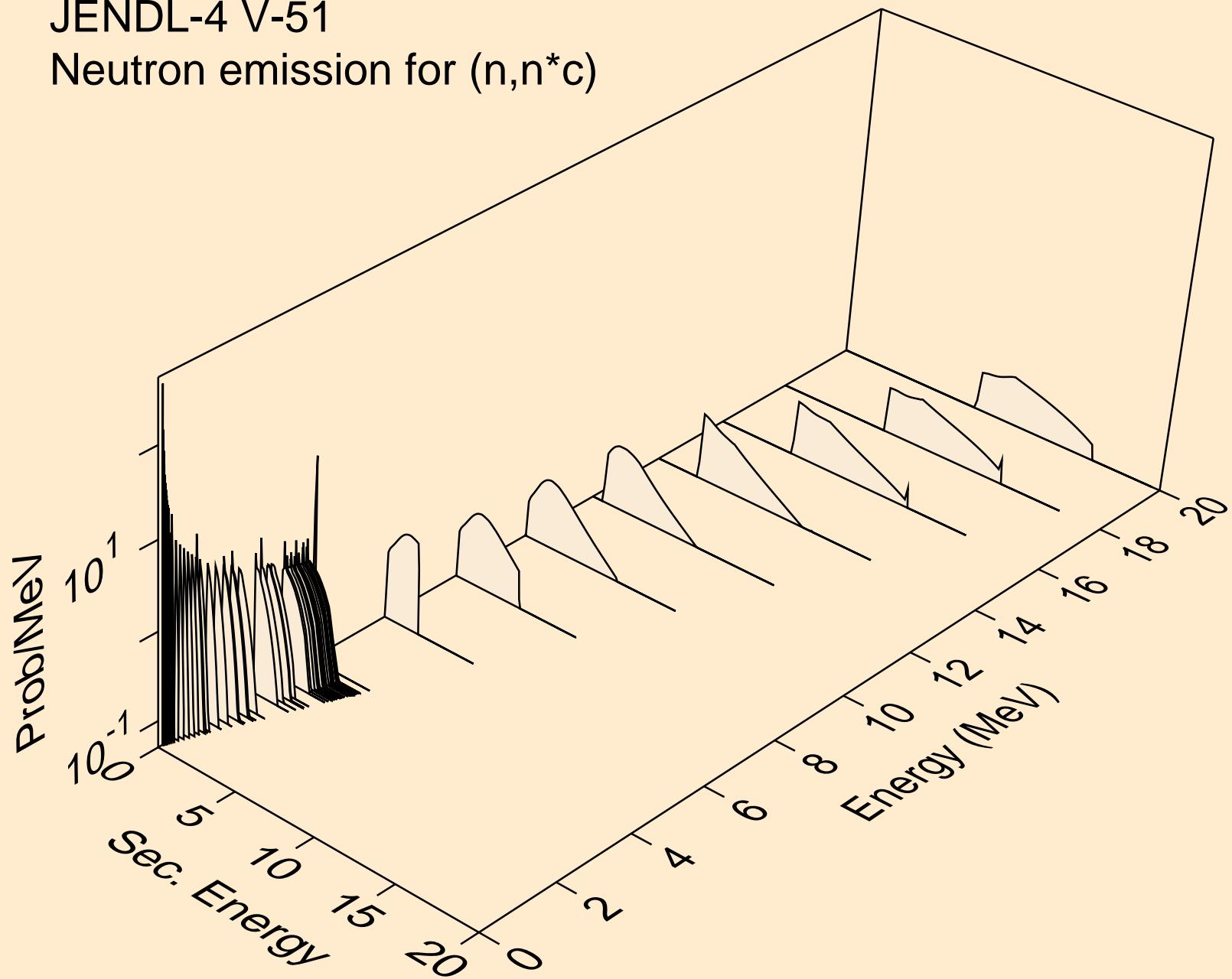
JENDL-4 V-51  
Neutron emission for  $(n,n^*)p$



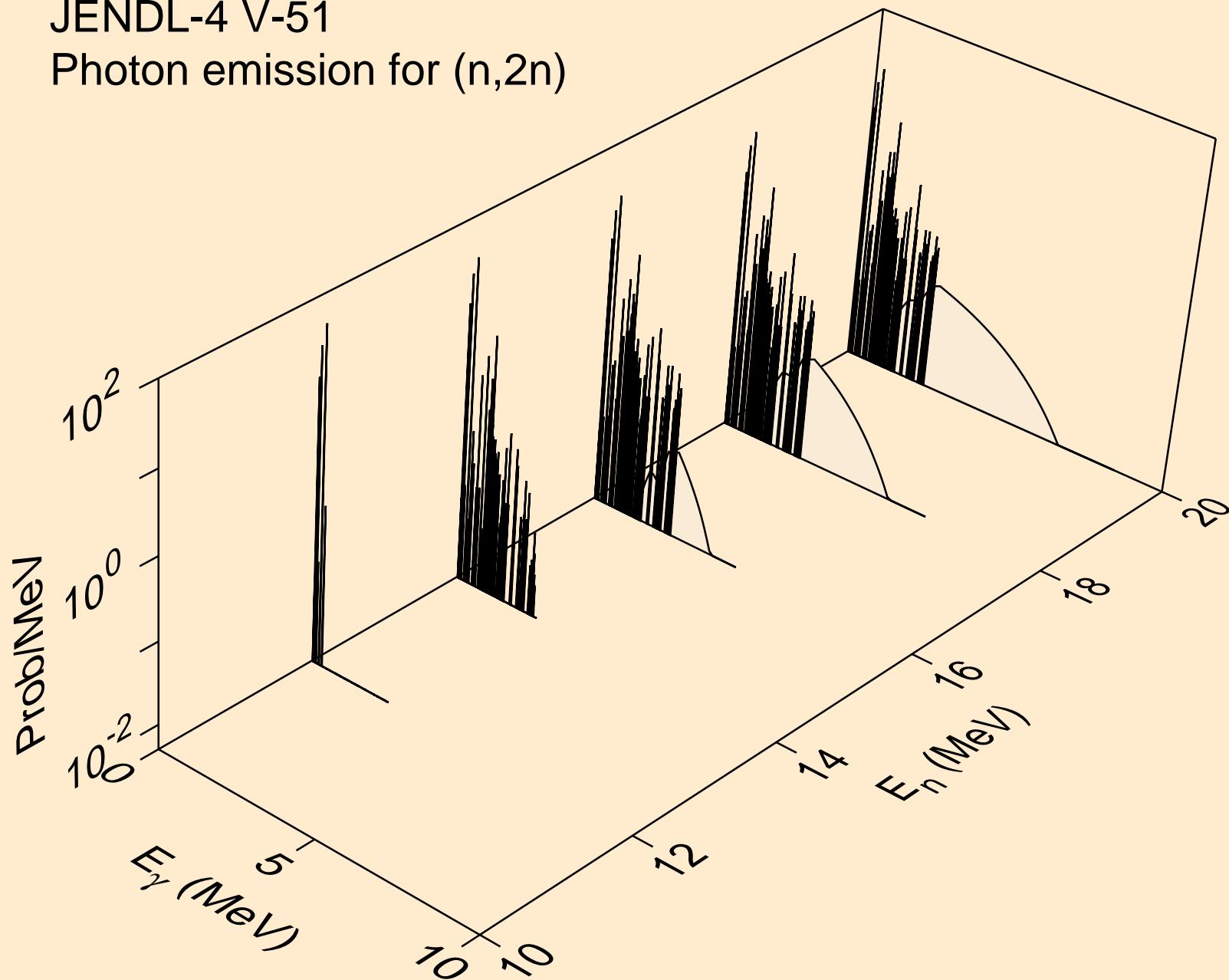
JENDL-4 V-51  
Neutron emission for  $(n,n^*)d$



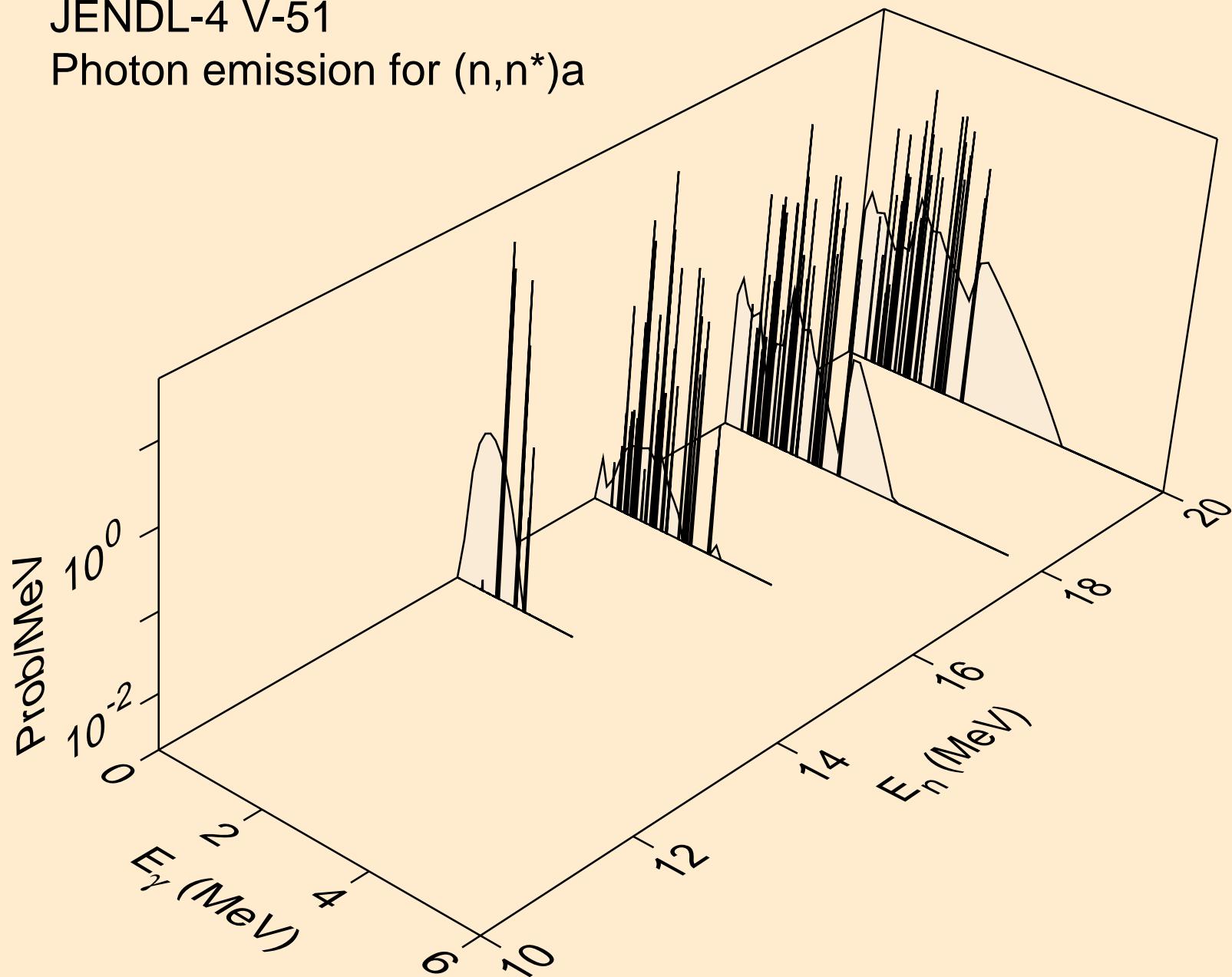
JENDL-4 V-51  
Neutron emission for  $(n, n^* c)$



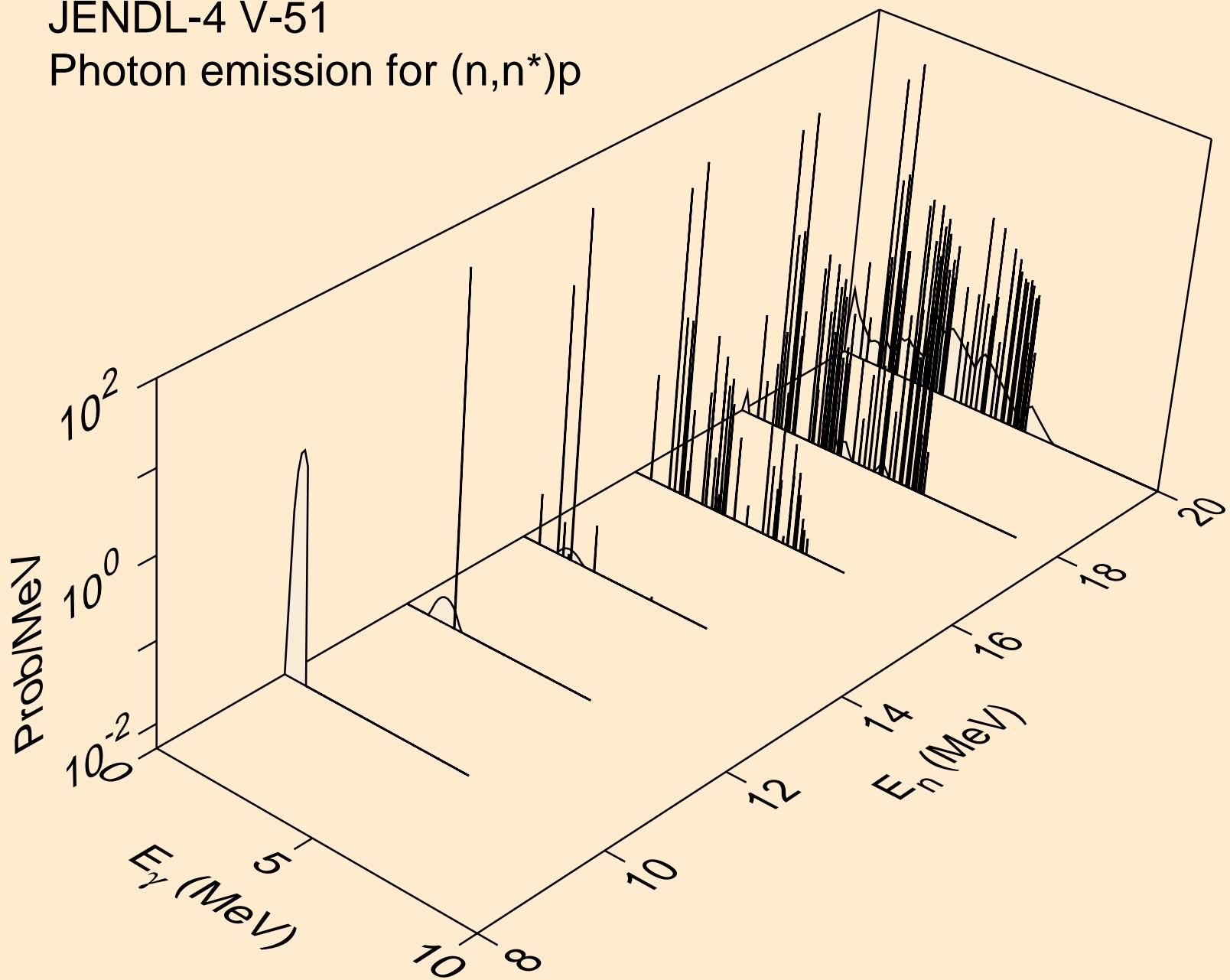
JENDL-4 V-51  
Photon emission for ( $n,2n$ )



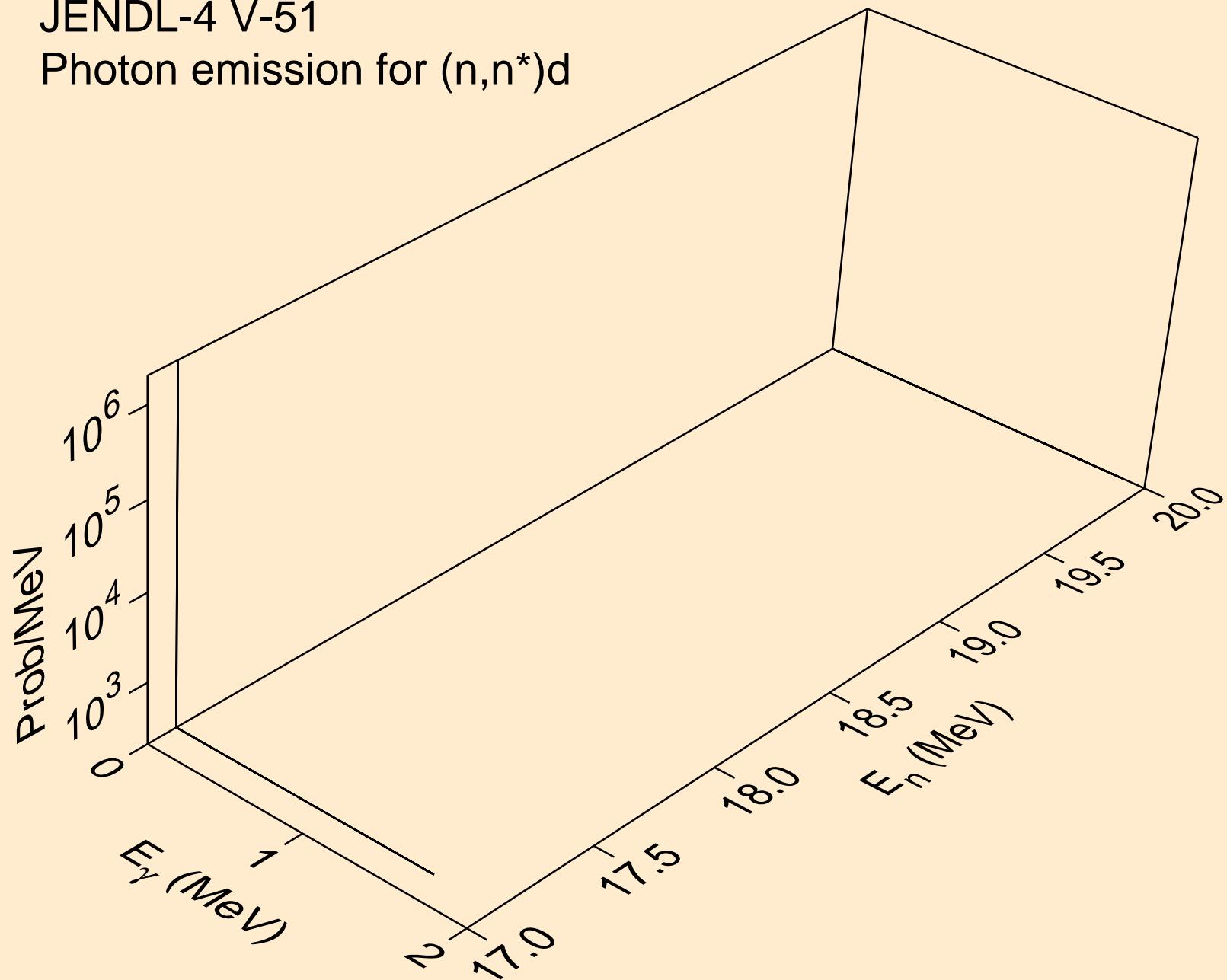
JENDL-4 V-51  
Photon emission for  $(n,n^*)a$



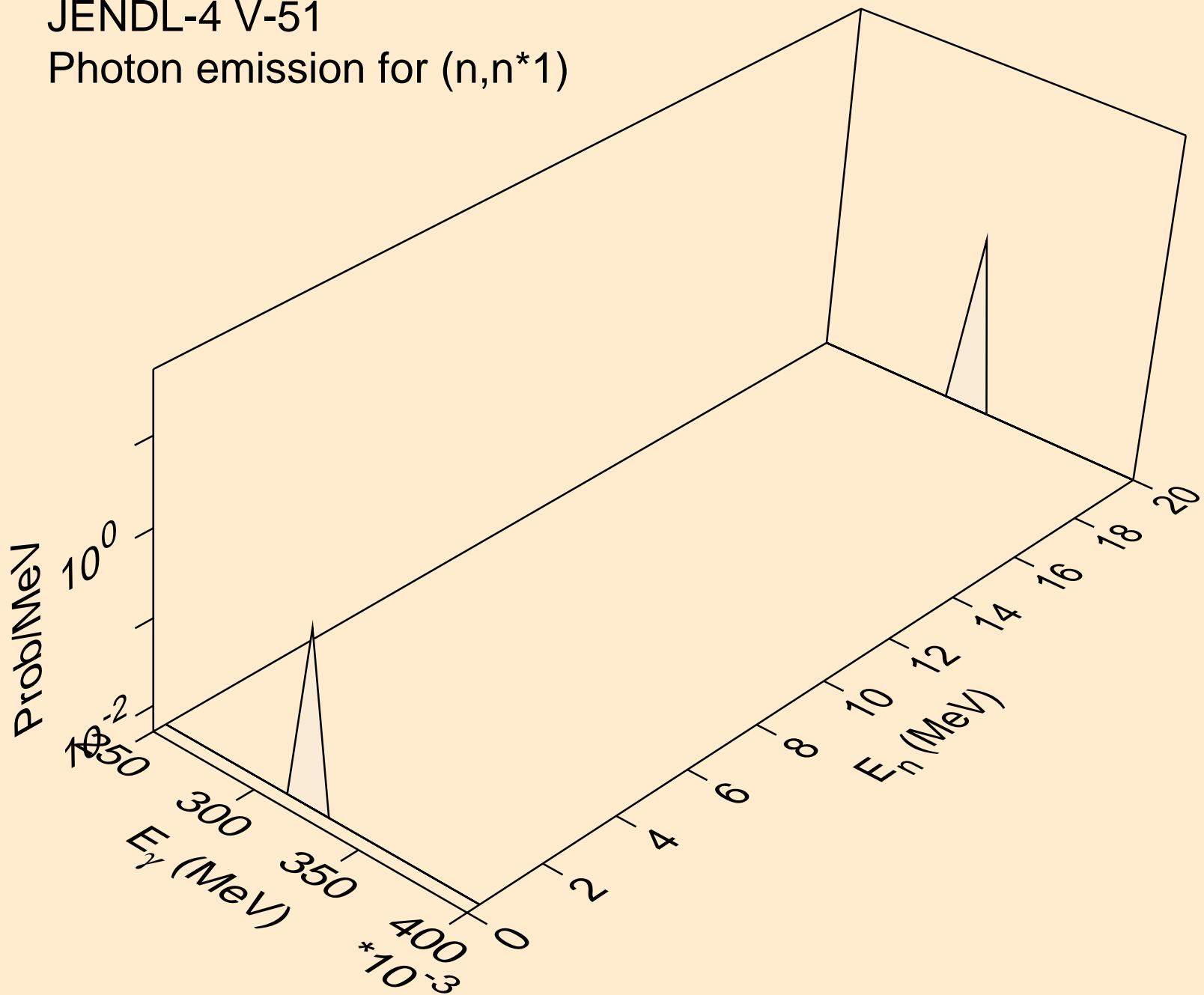
JENDL-4 V-51  
Photon emission for  $(n,n^*)p$



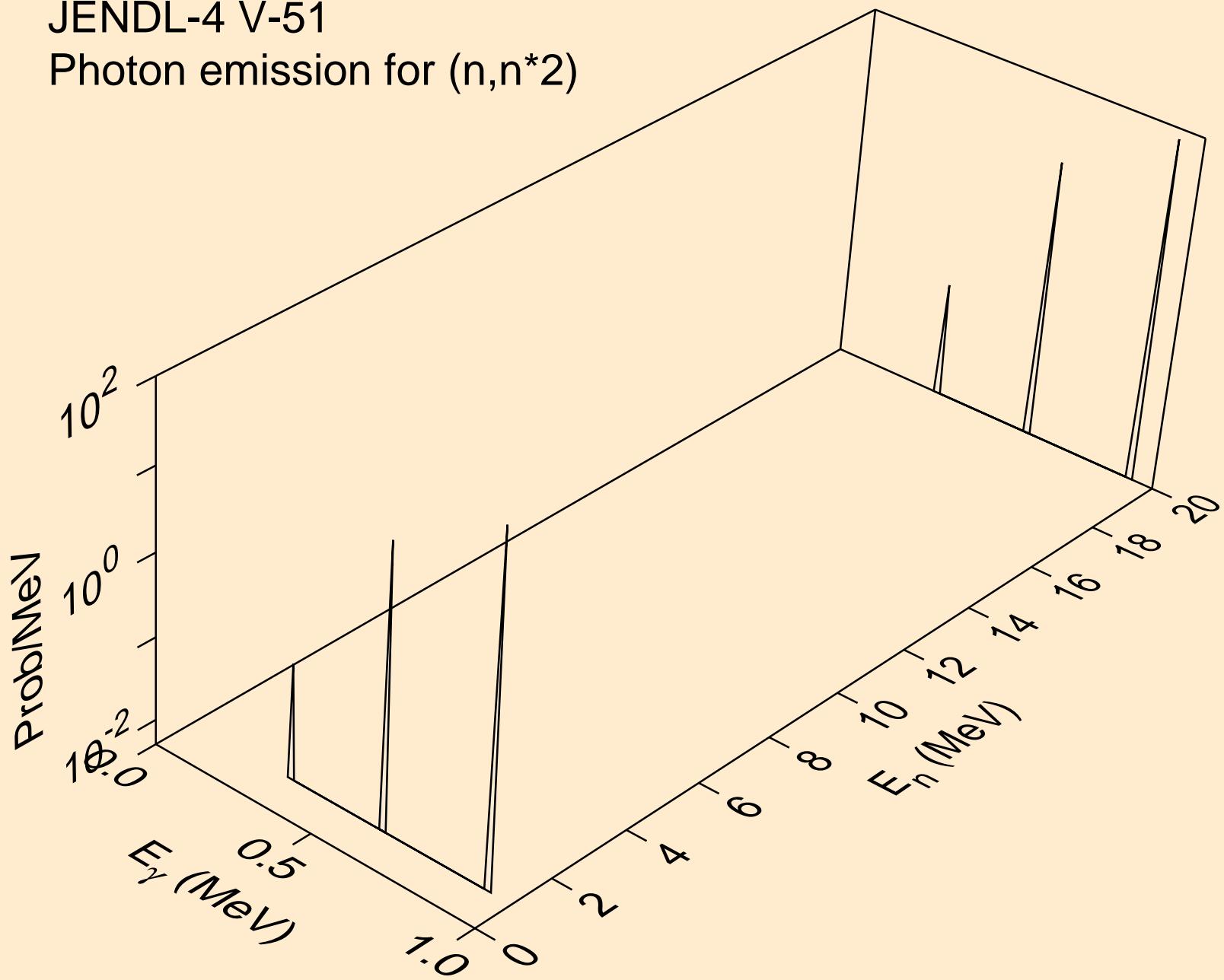
JENDL-4 V-51  
Photon emission for  $(n,n^*)d$



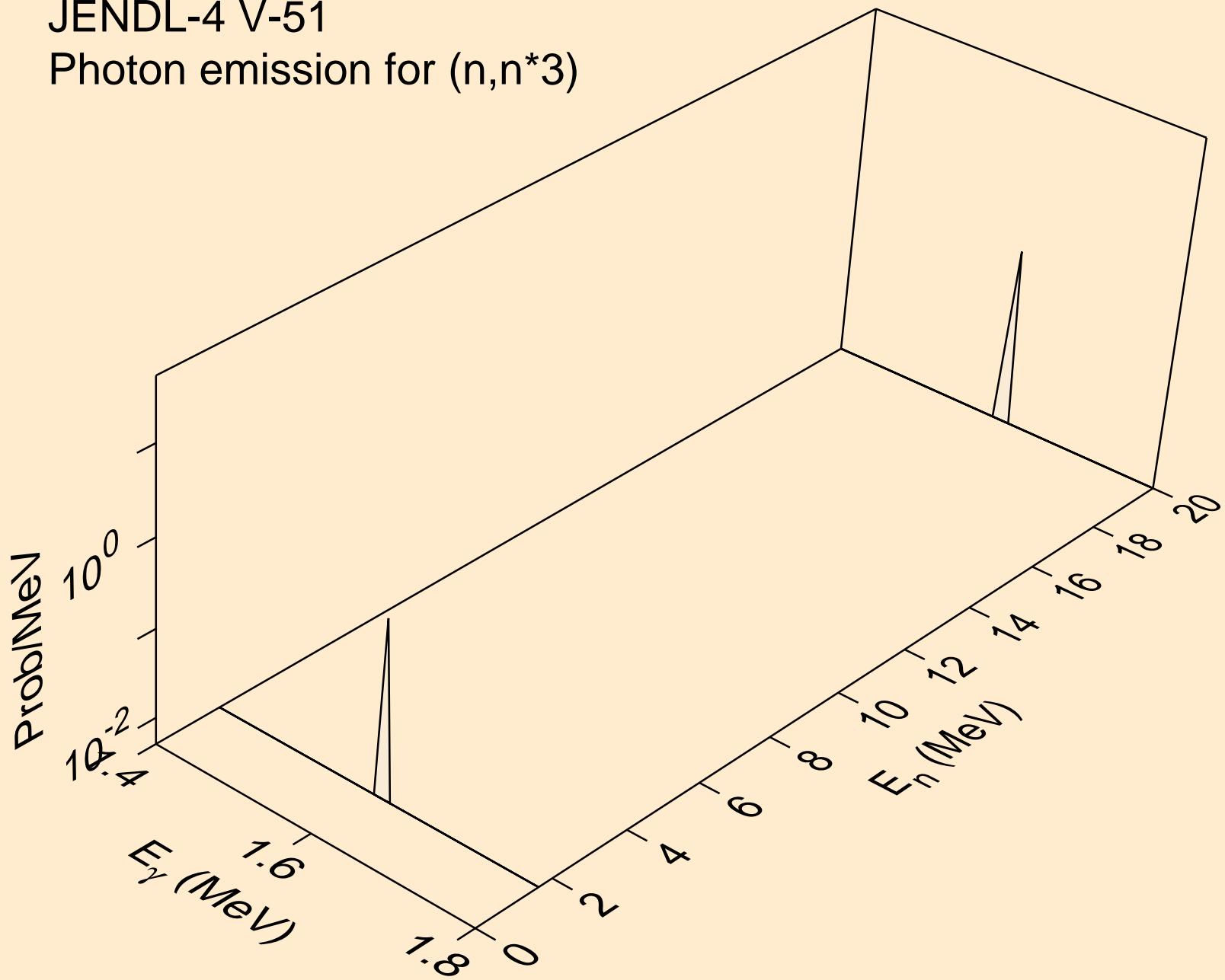
JENDL-4 V-51  
Photon emission for (n,n\*1)



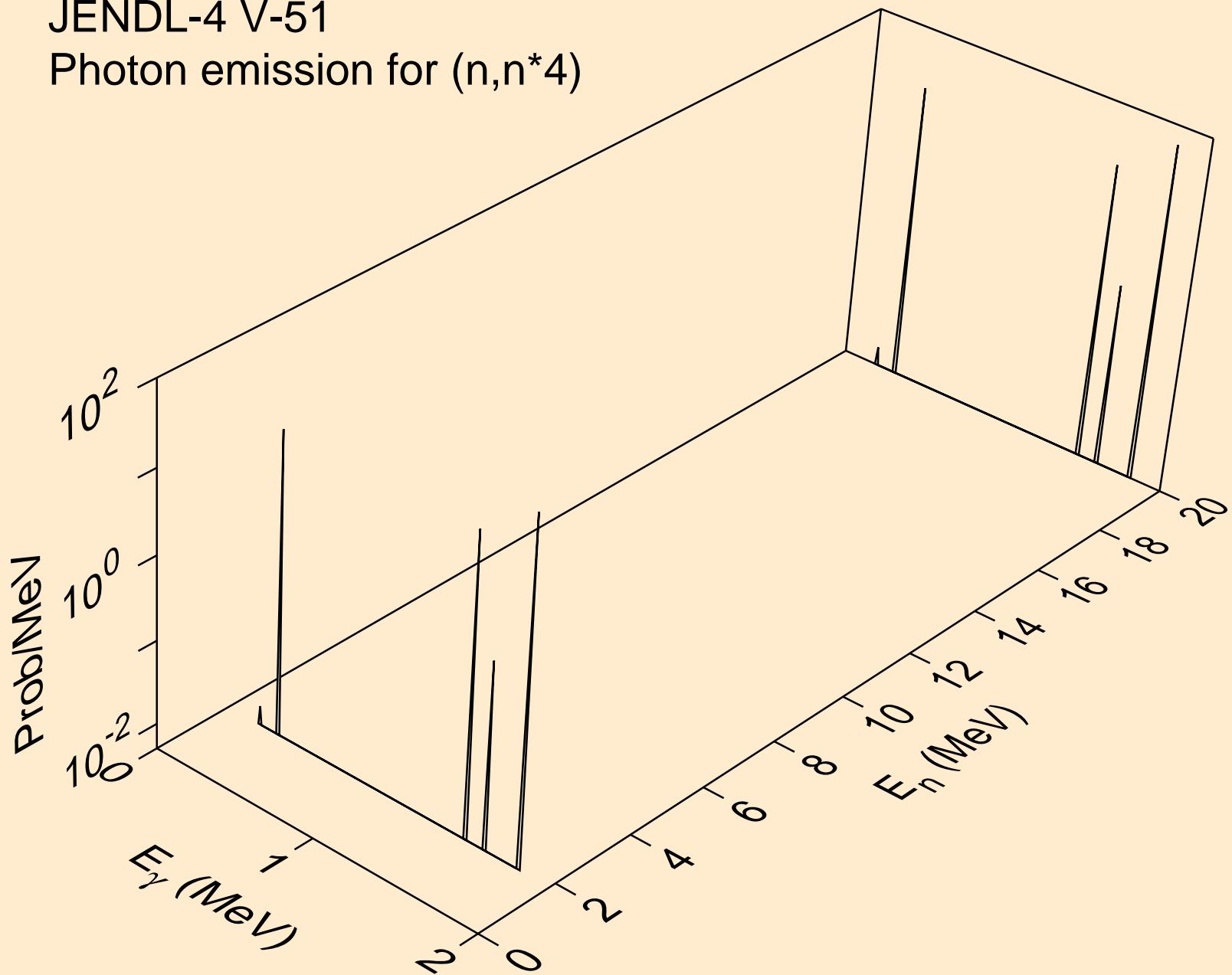
JENDL-4 V-51  
Photon emission for (n,n\*2)



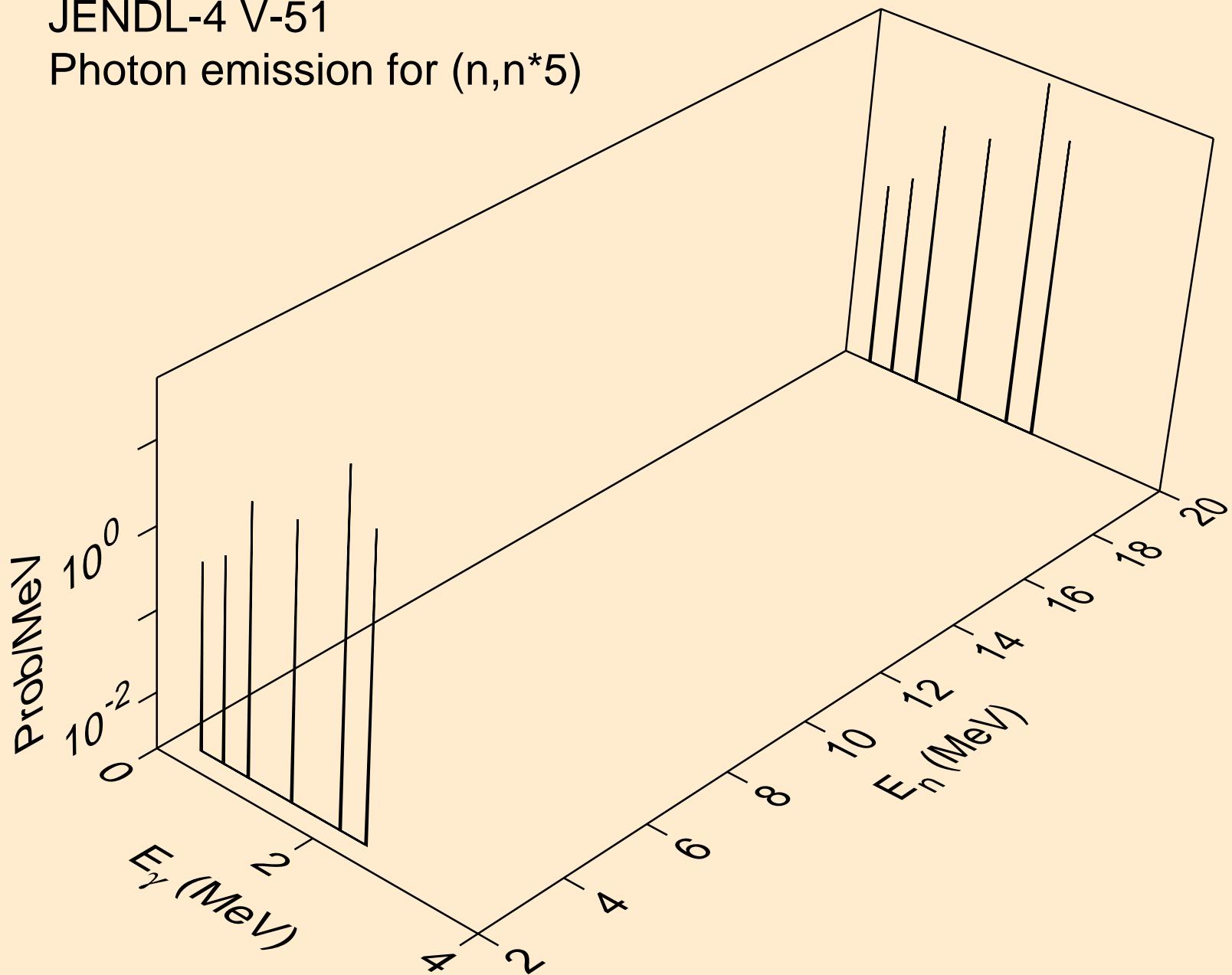
JENDL-4 V-51  
Photon emission for (n,n\*3)



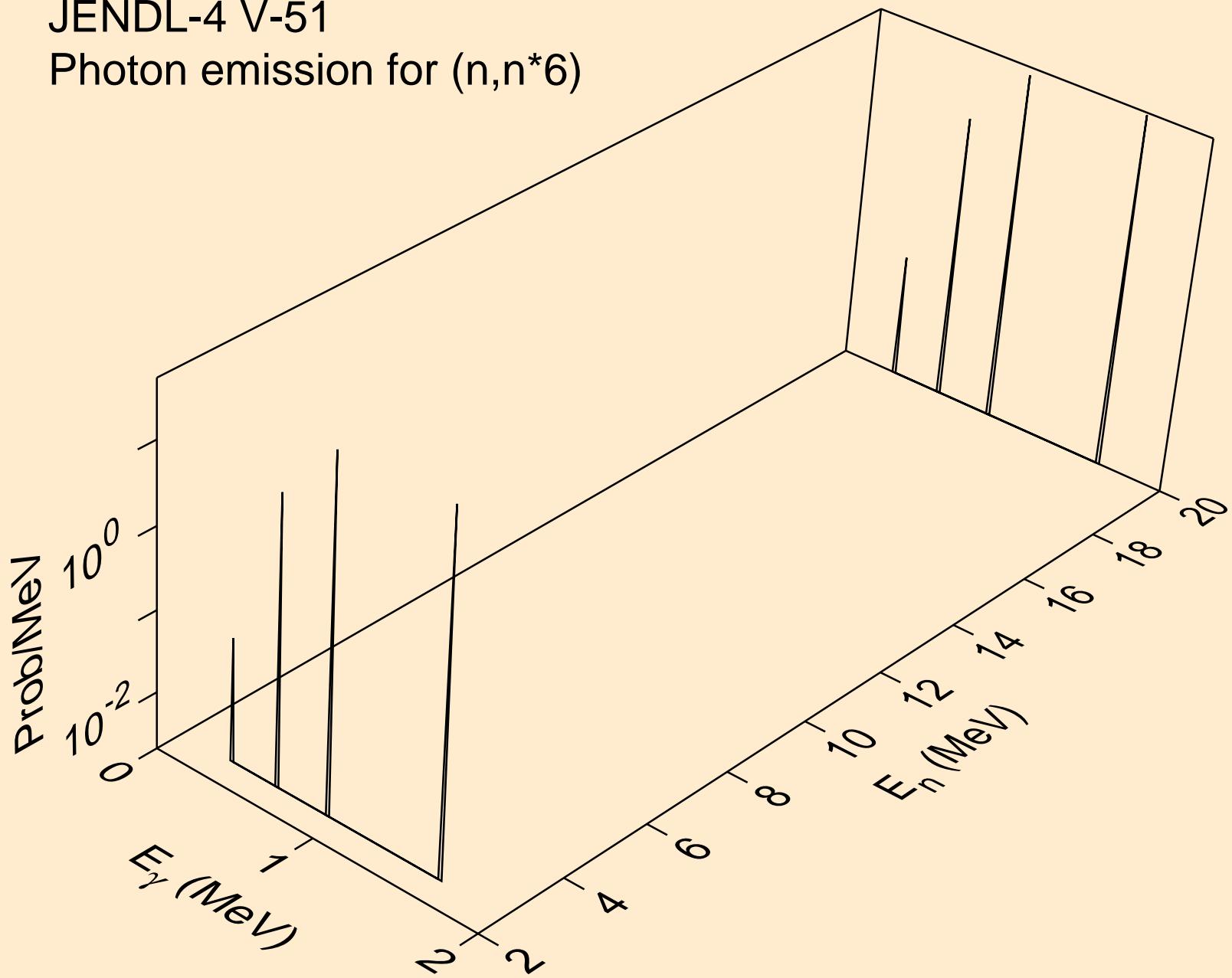
JENDL-4 V-51  
Photon emission for (n,n\*4)



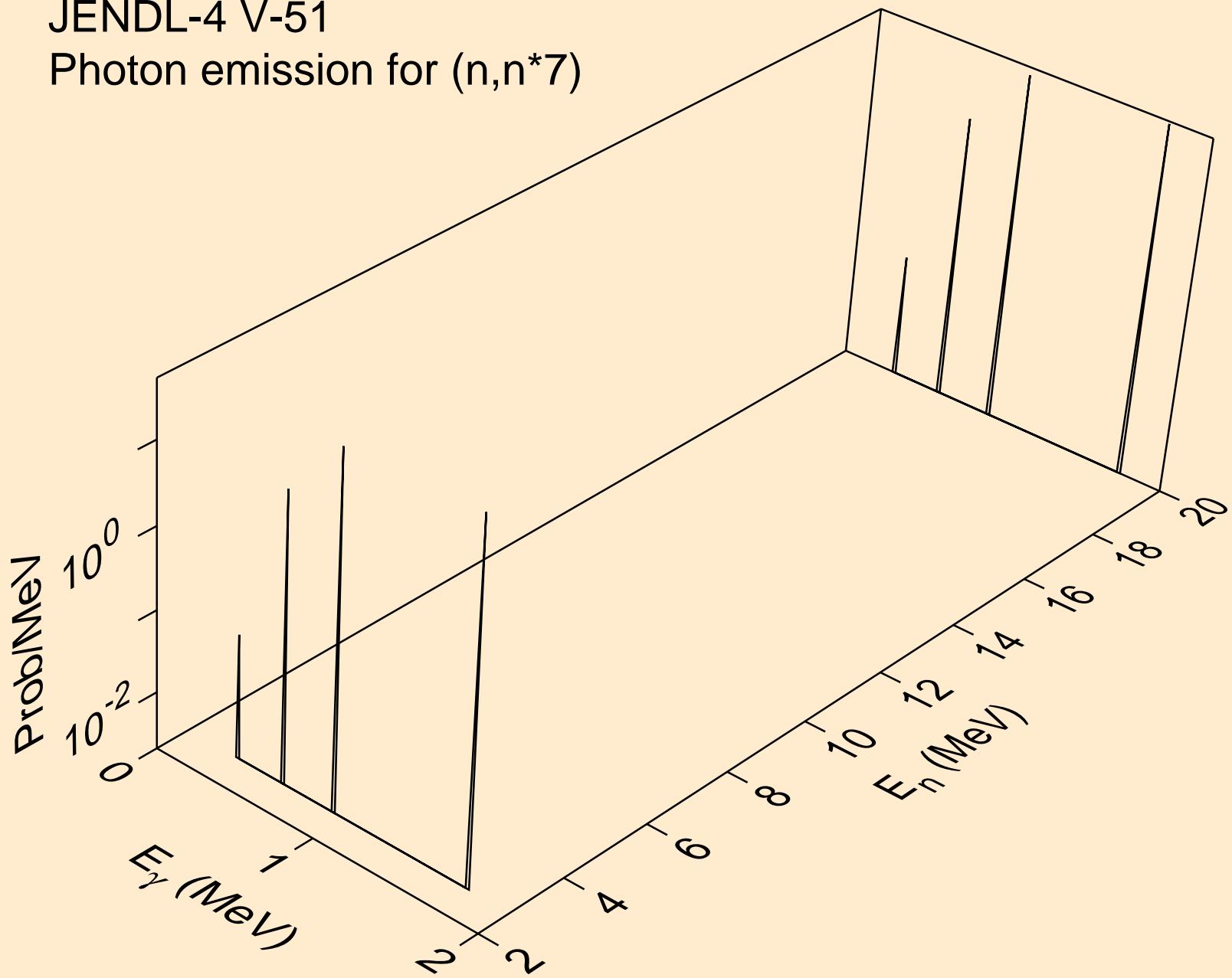
JENDL-4 V-51  
Photon emission for (n,n\*5)



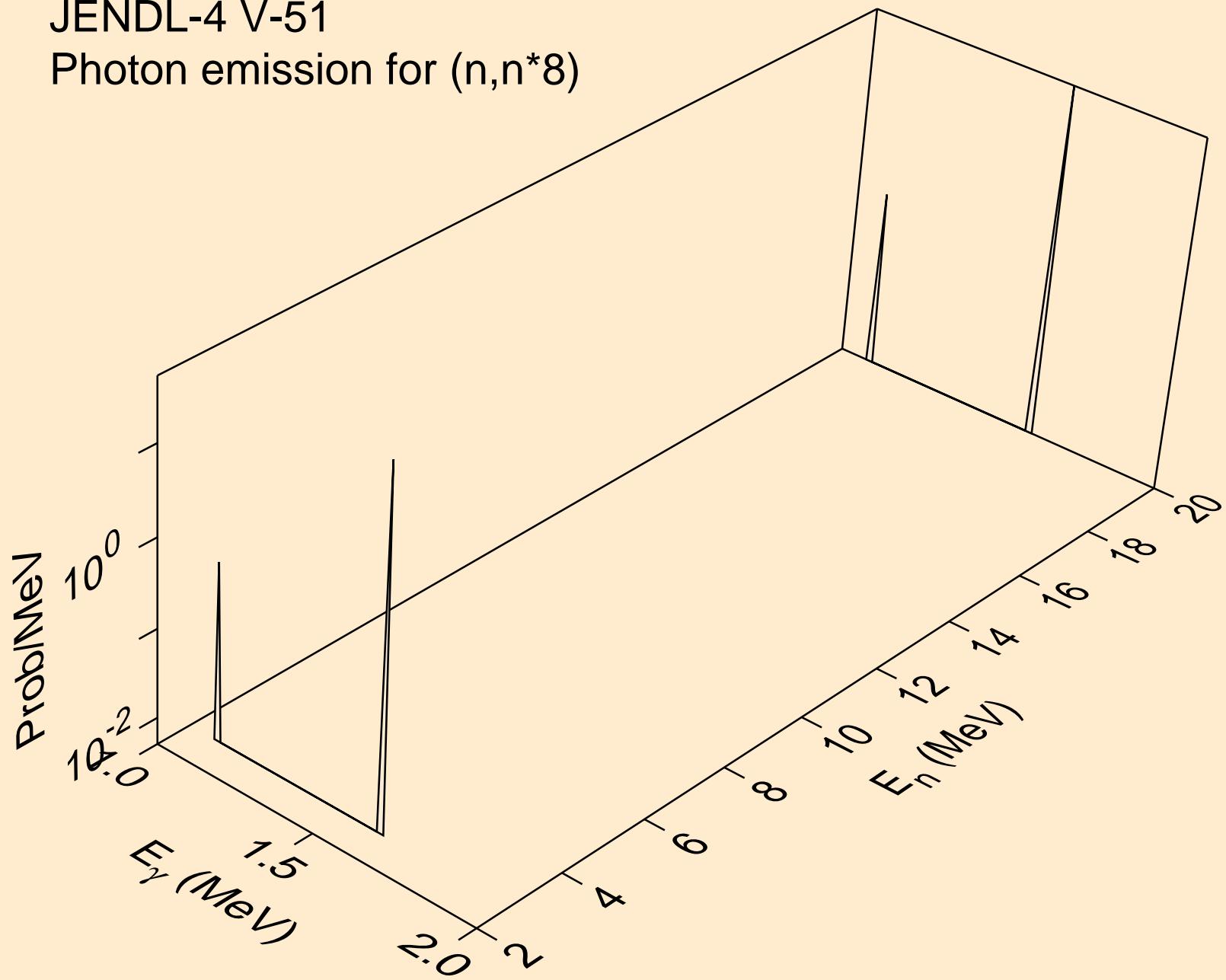
JENDL-4 V-51  
Photon emission for (n,n\*6)



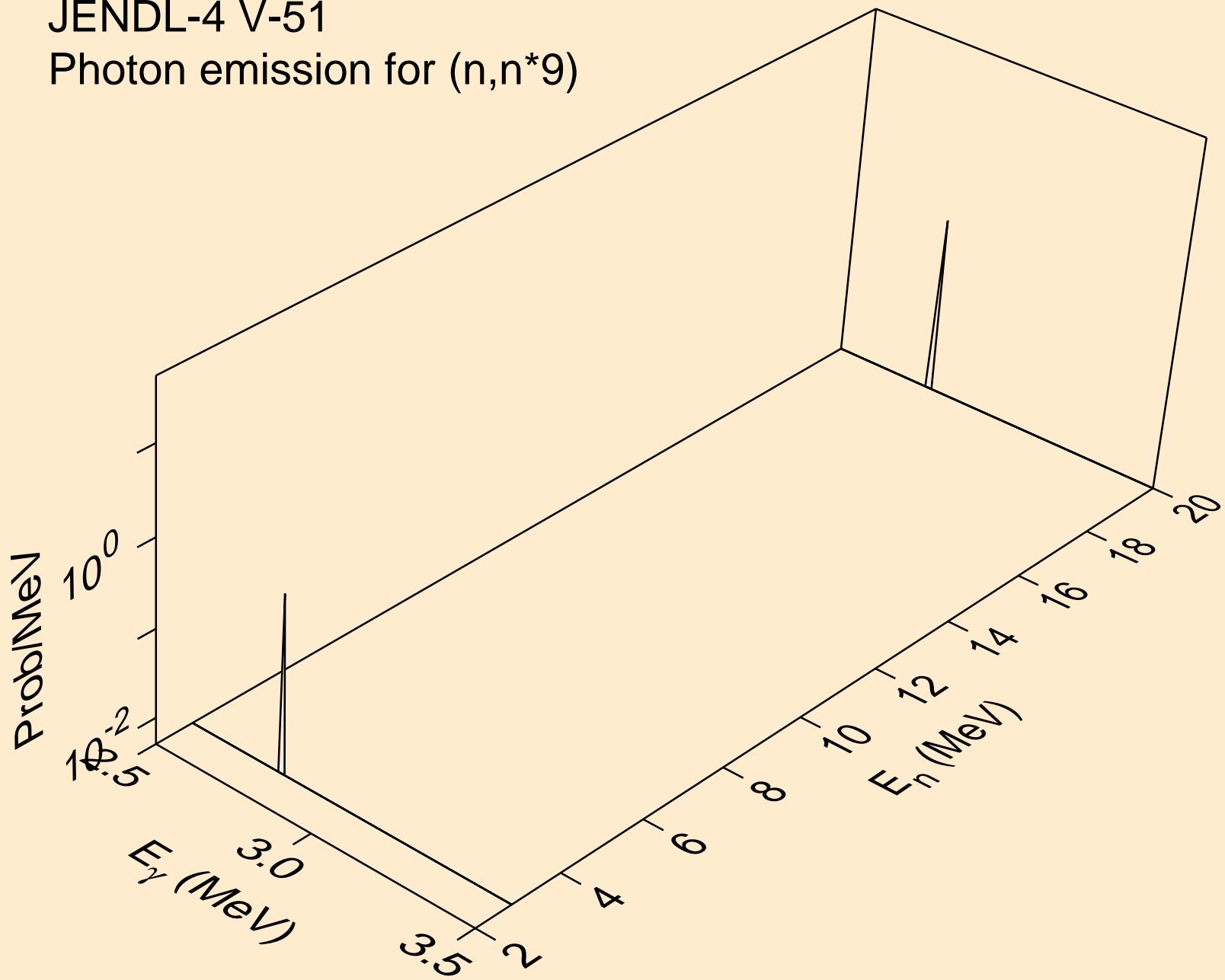
JENDL-4 V-51  
Photon emission for  $(n,n^*)^7$



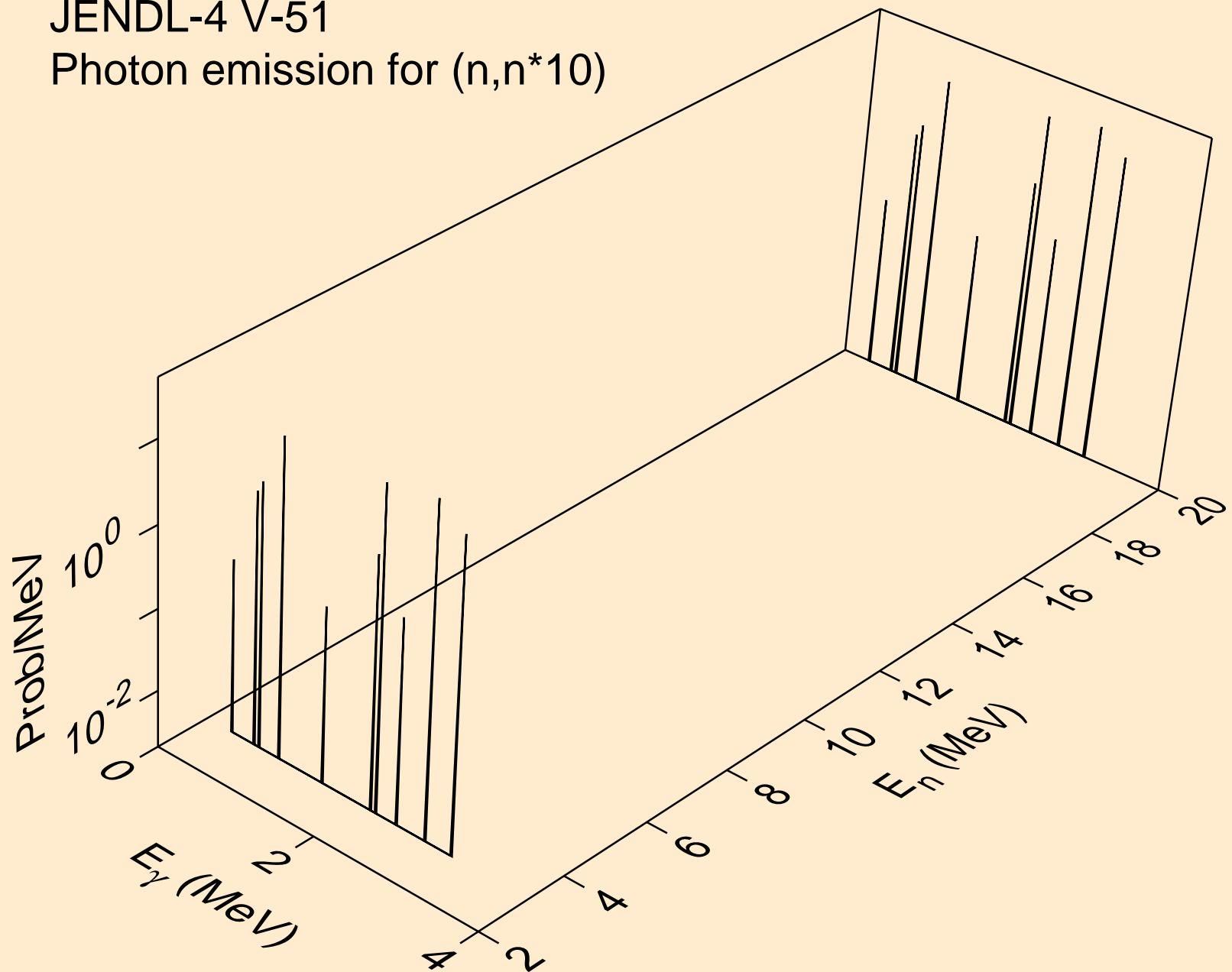
JENDL-4 V-51  
Photon emission for (n,n\*8)



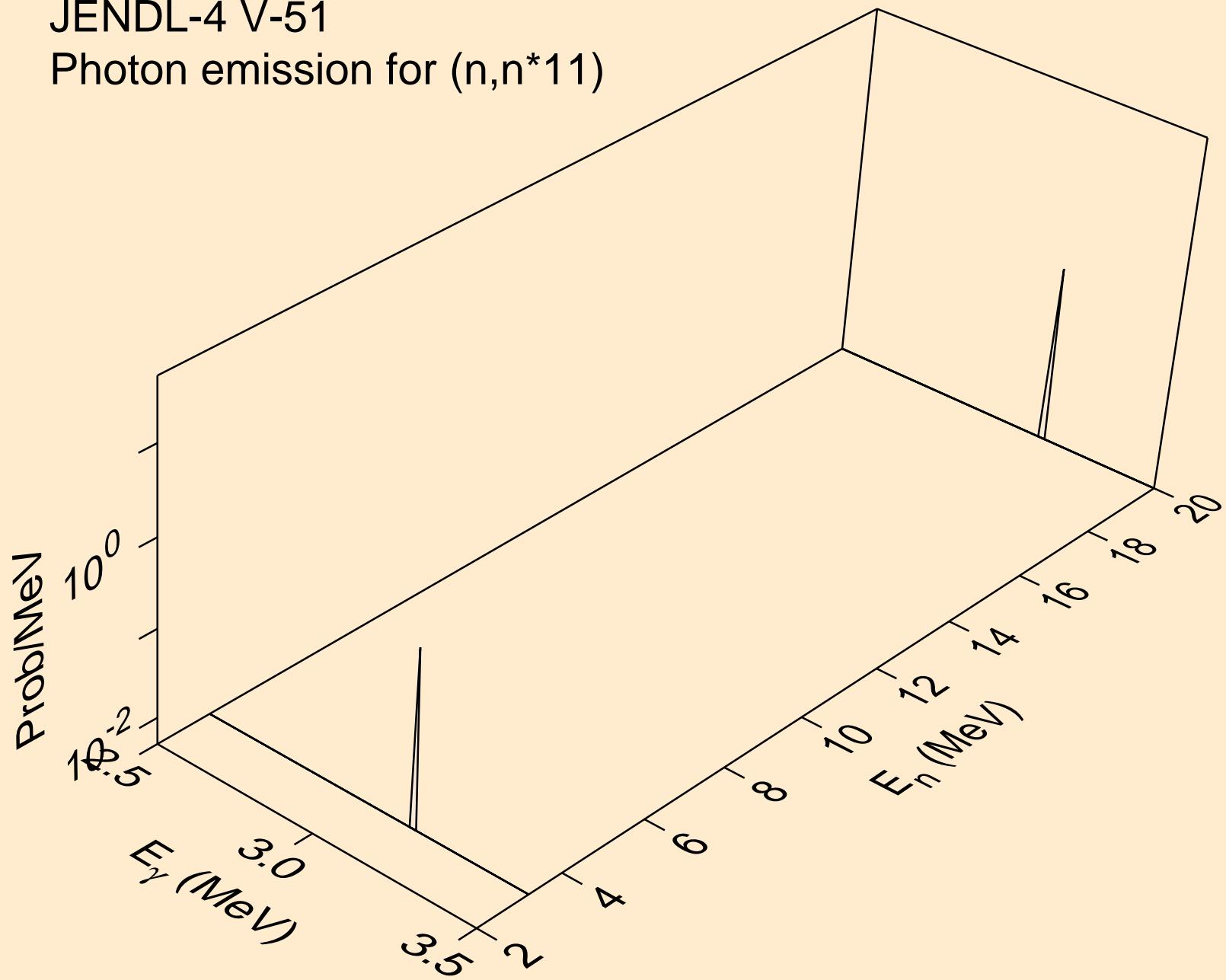
JENDL-4 V-51  
Photon emission for (n,n\*9)



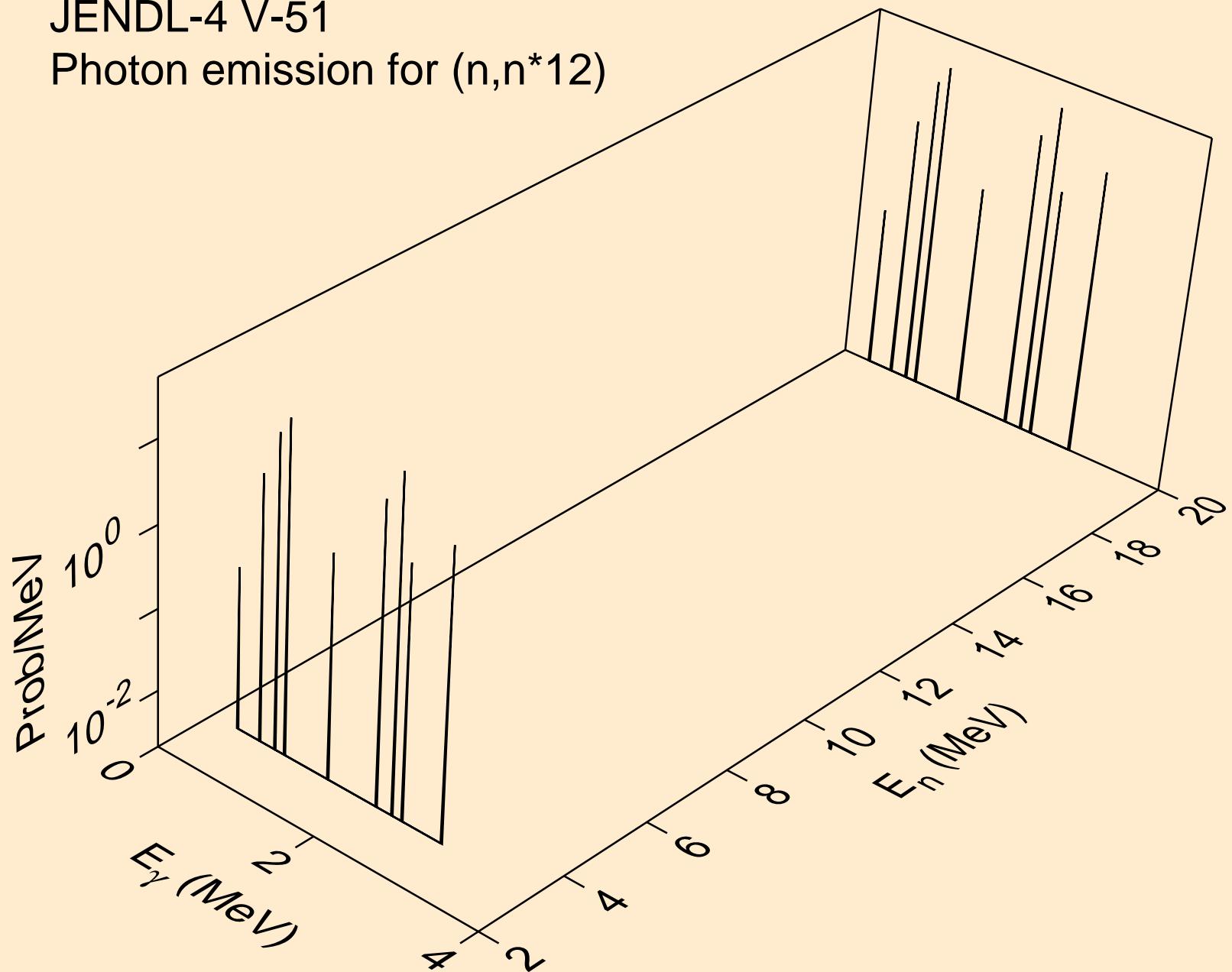
JENDL-4 V-51  
Photon emission for (n,n\*10)



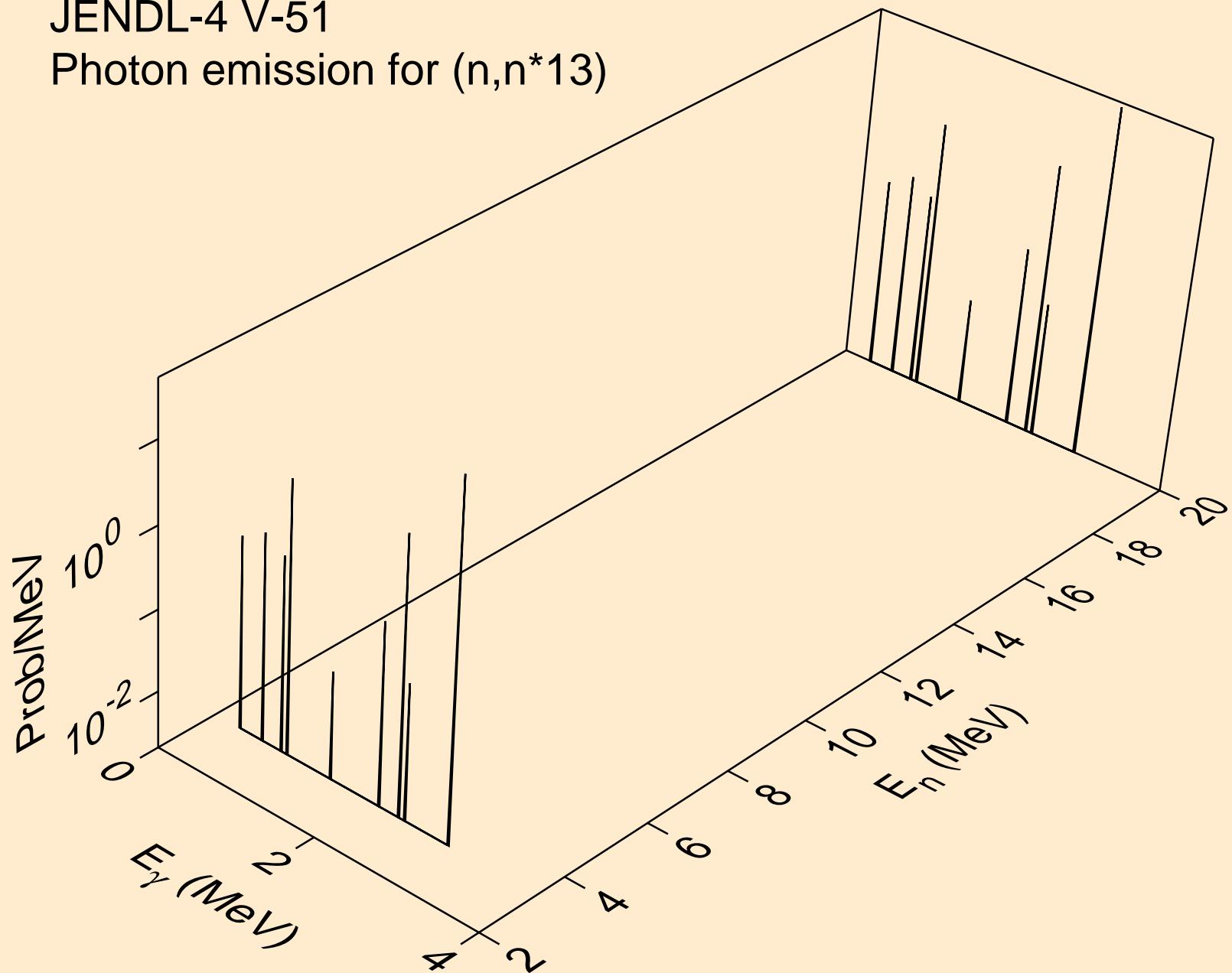
JENDL-4 V-51  
Photon emission for (n,n\*11)



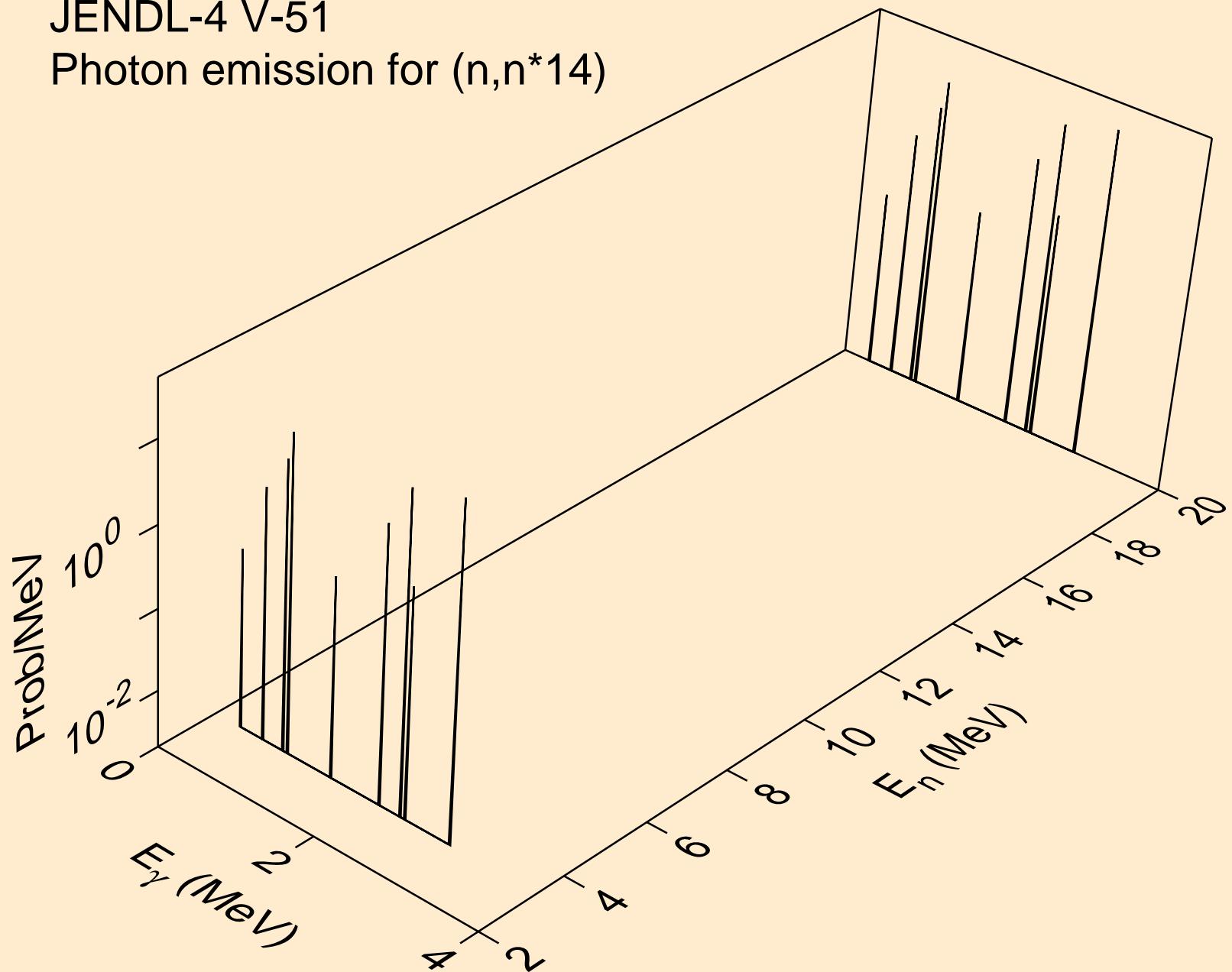
JENDL-4 V-51  
Photon emission for (n,n\*12)



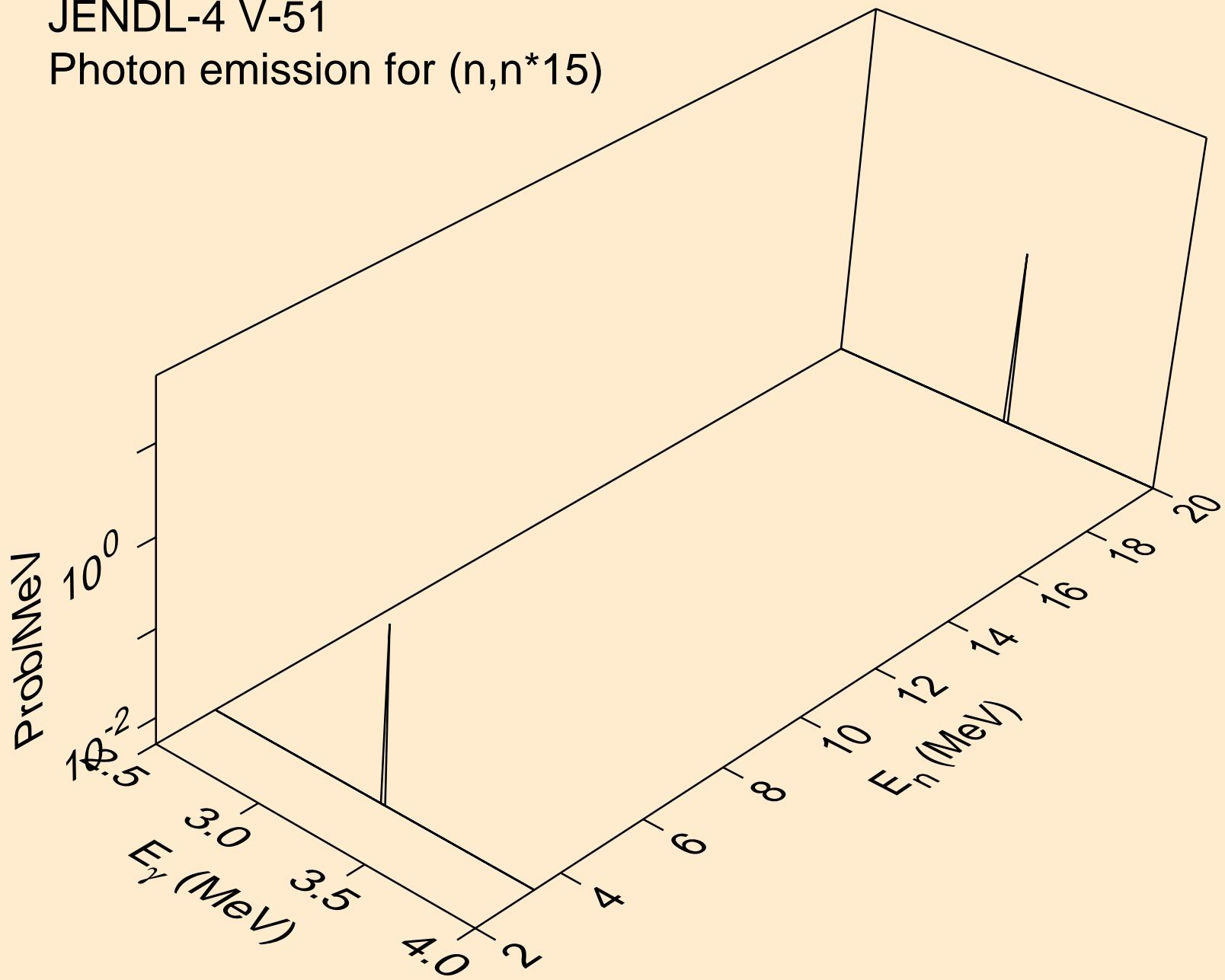
JENDL-4 V-51  
Photon emission for ( $n, n^* 13$ )



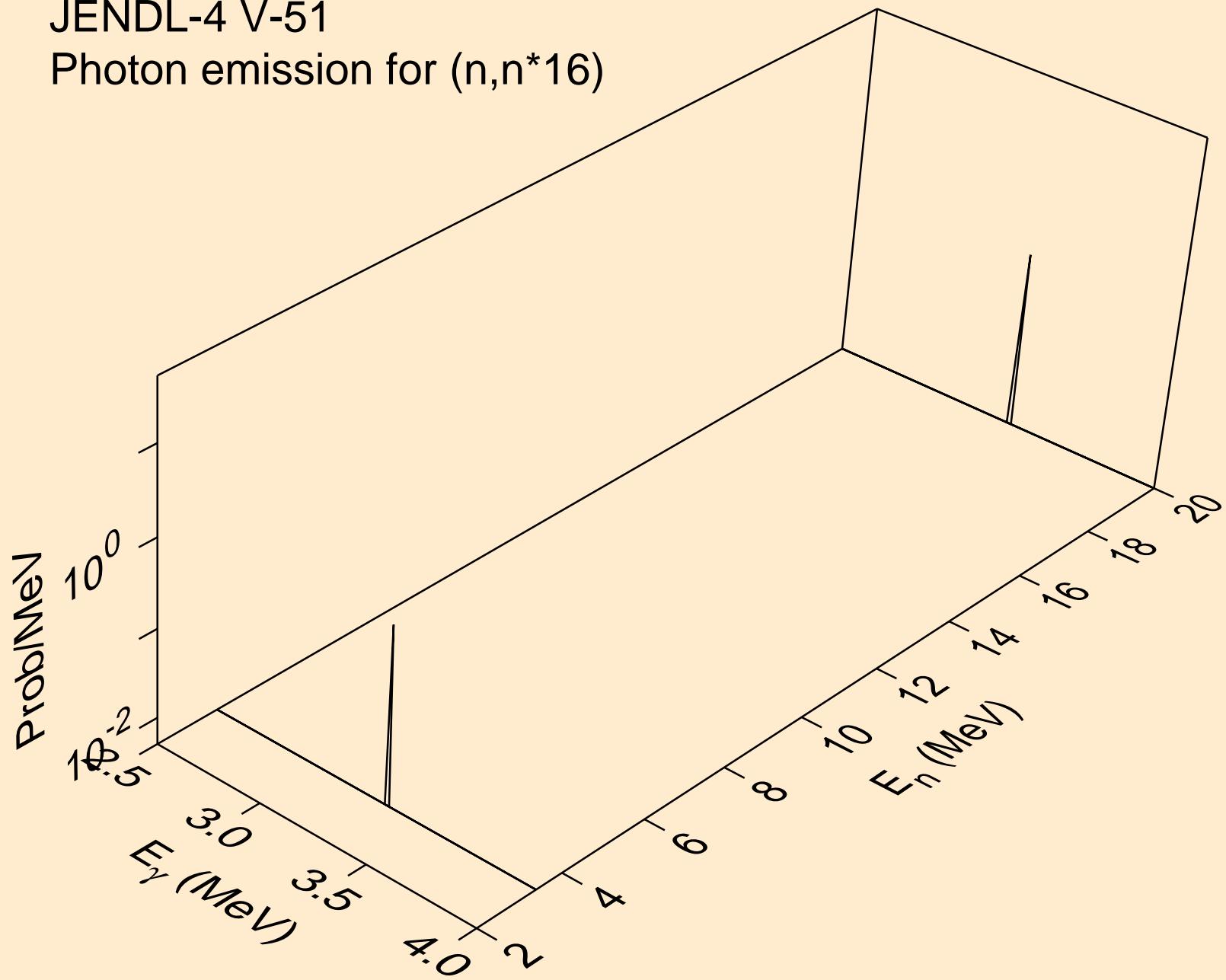
JENDL-4 V-51  
Photon emission for ( $n, n^* 14$ )



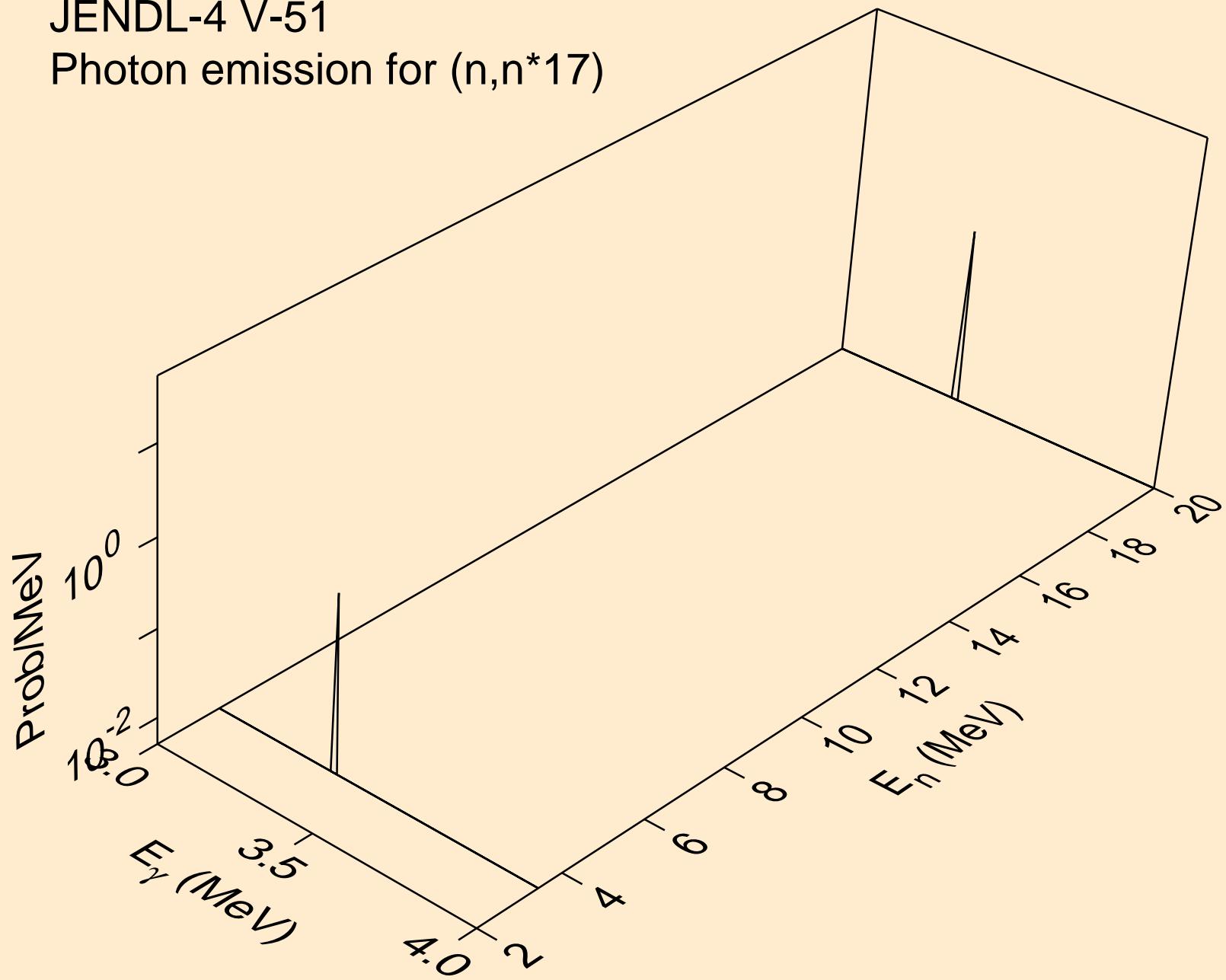
JENDL-4 V-51  
Photon emission for ( $n, n^* 15$ )



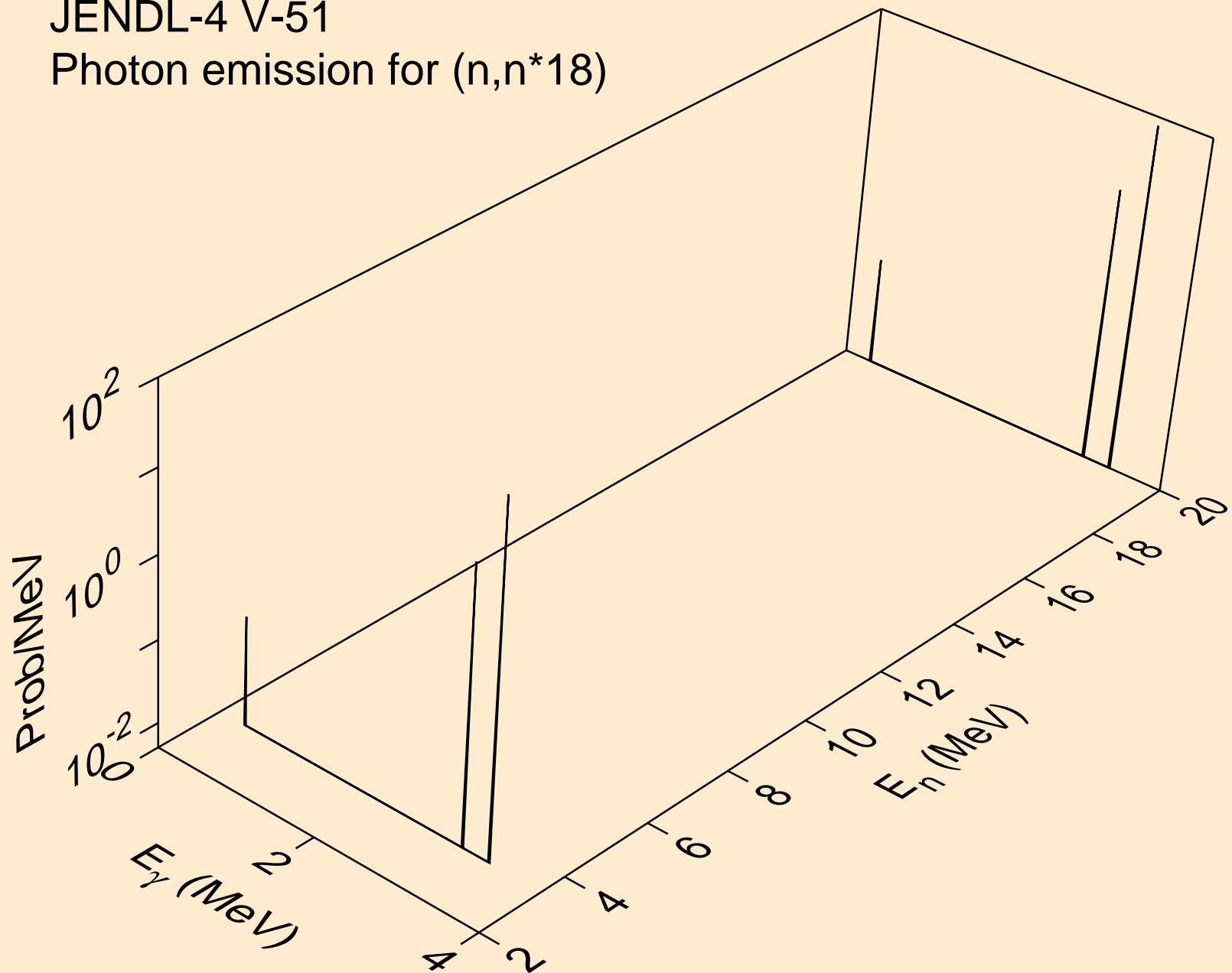
JENDL-4 V-51  
Photon emission for (n,n\*16)



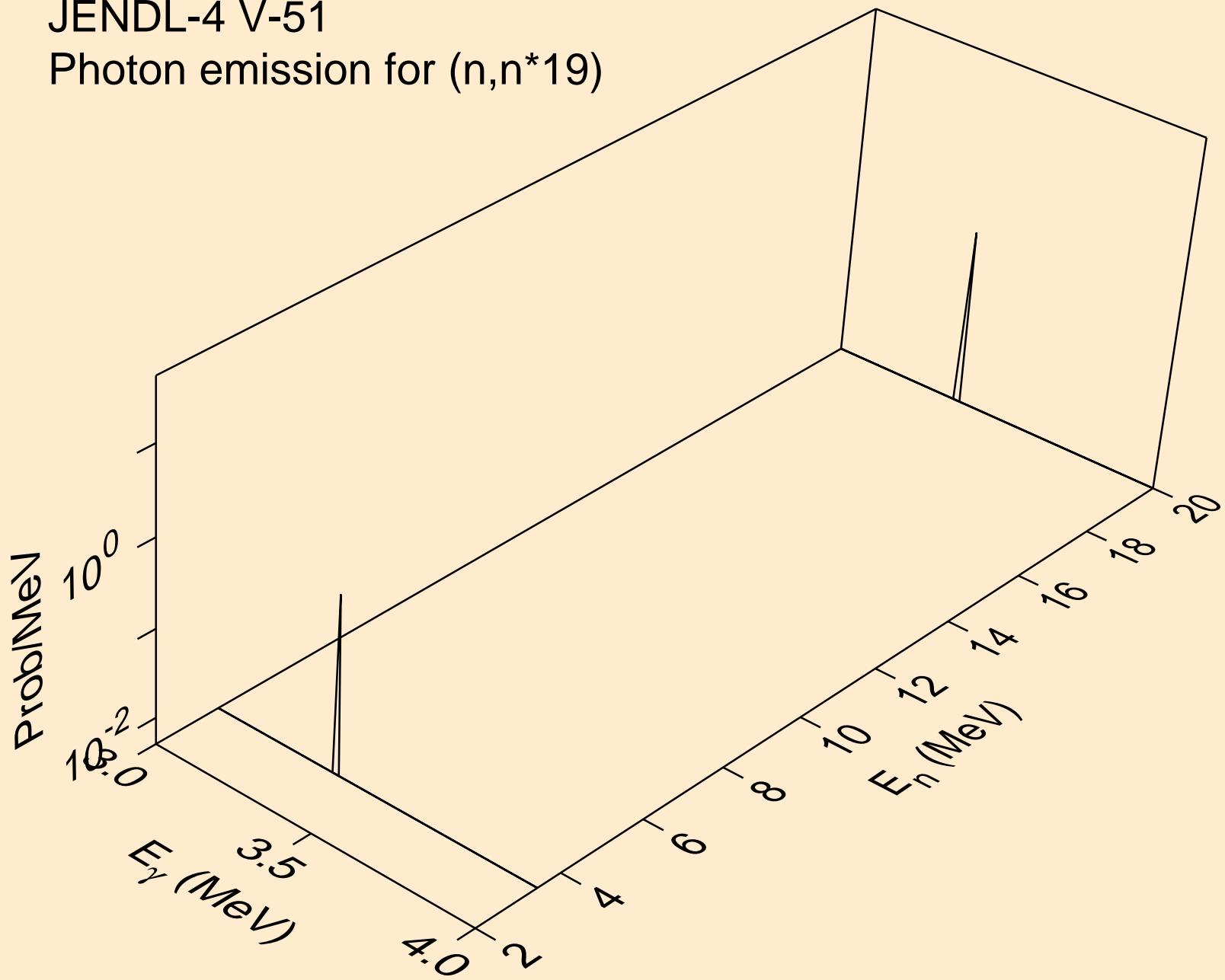
JENDL-4 V-51  
Photon emission for ( $n, n^* 17$ )



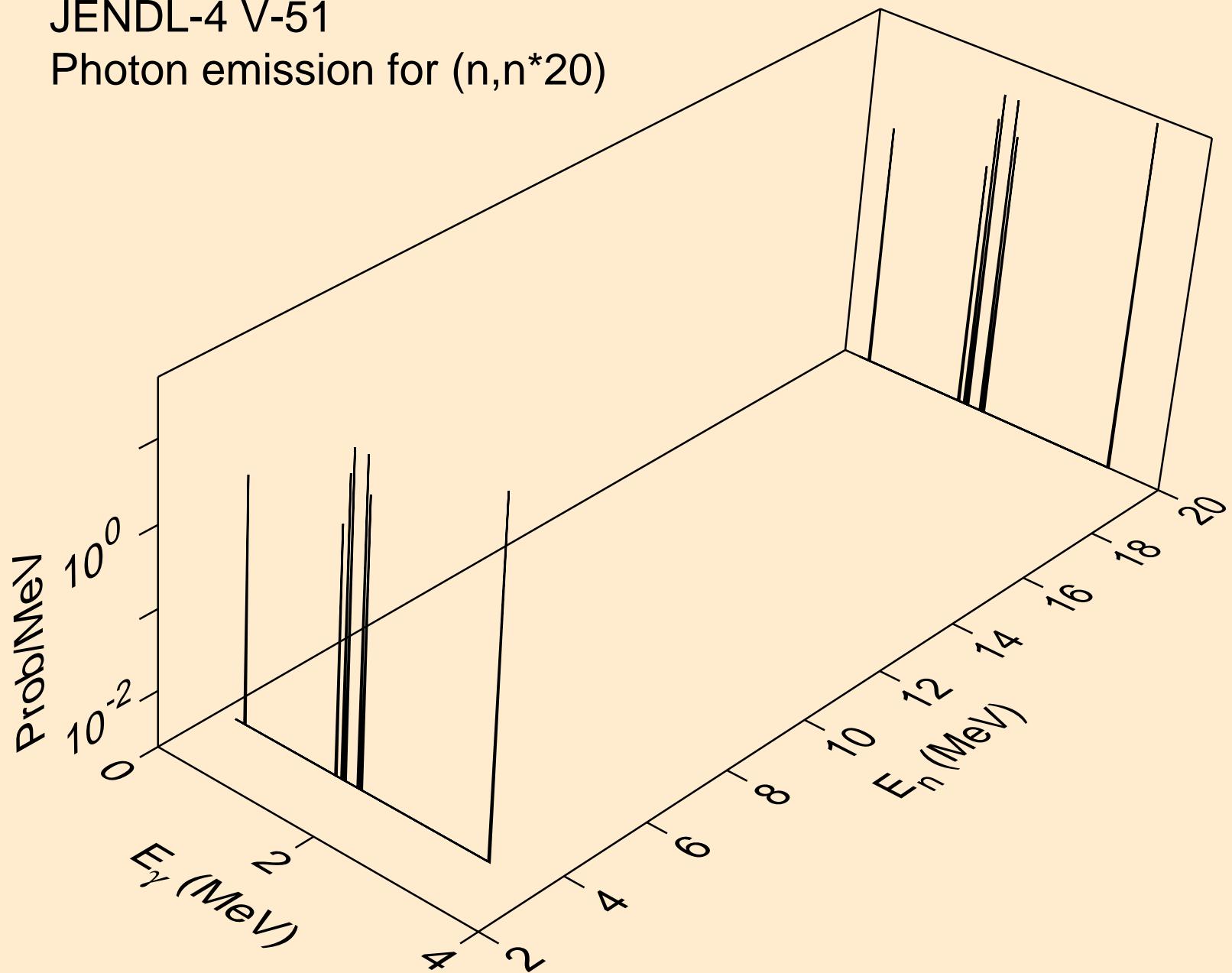
JENDL-4 V-51  
Photon emission for ( $n, n^* 18$ )



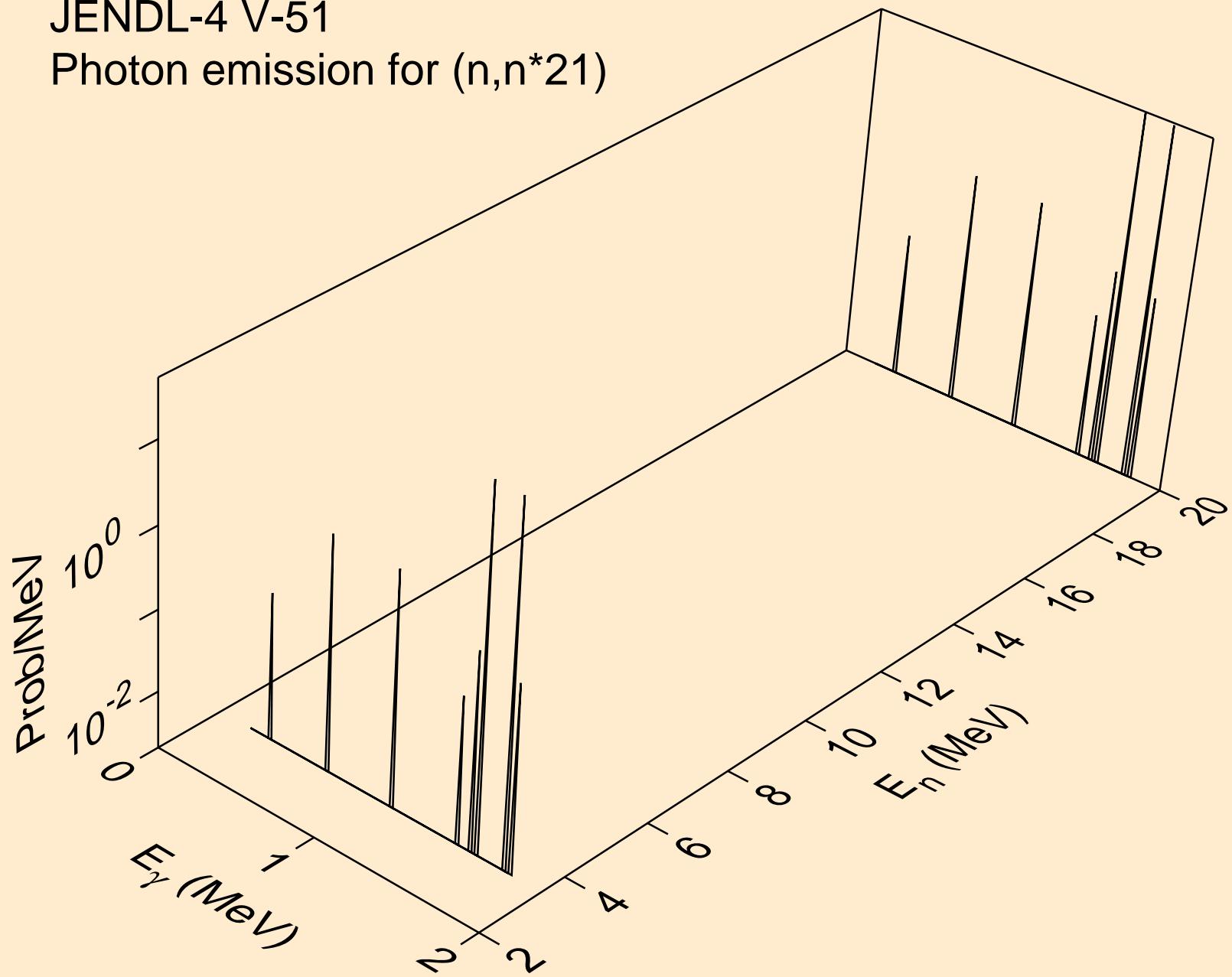
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Photon emission for ( $n, n^* 19$ )



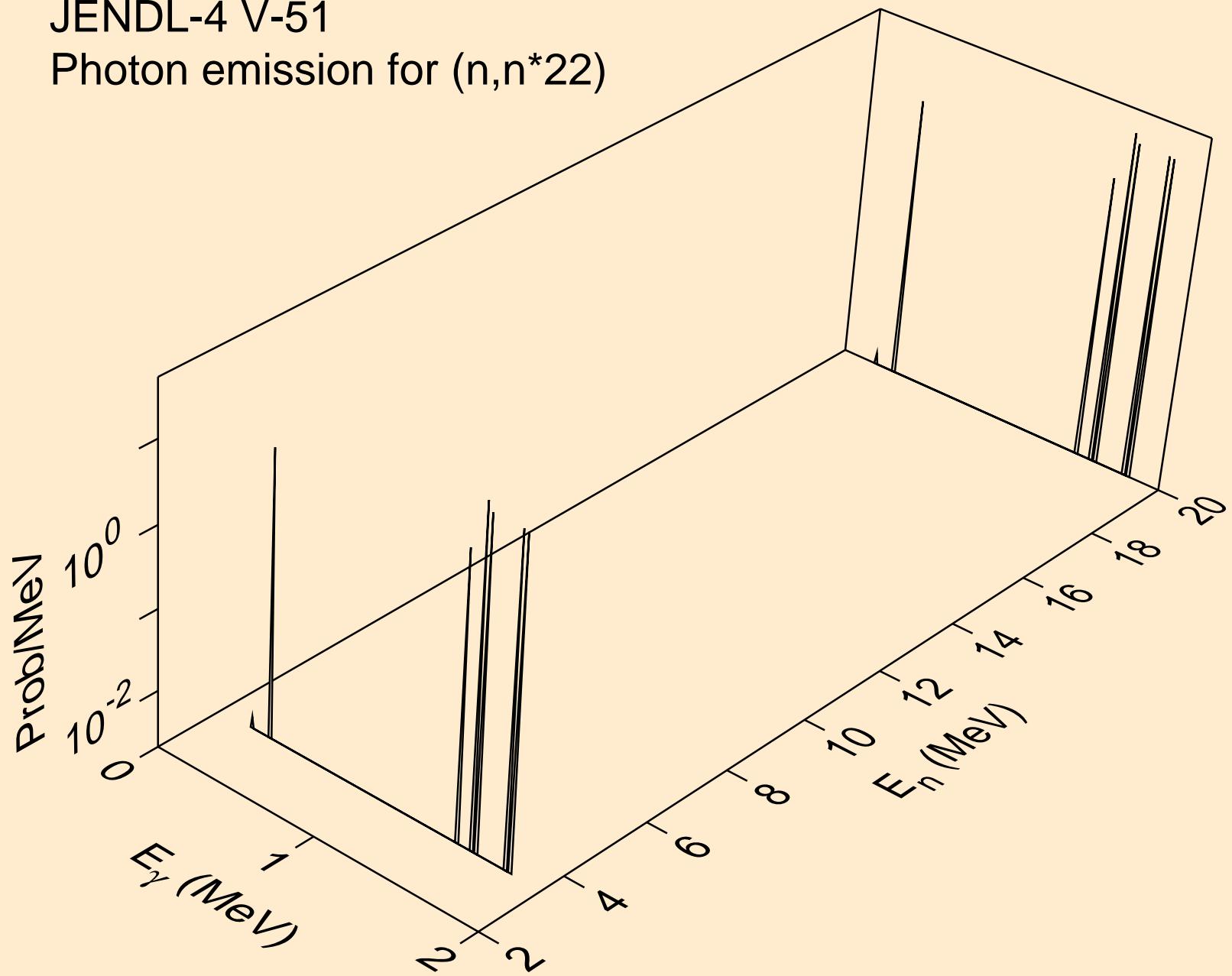
JENDL-4 V-51  
Photon emission for (n,n\*20)



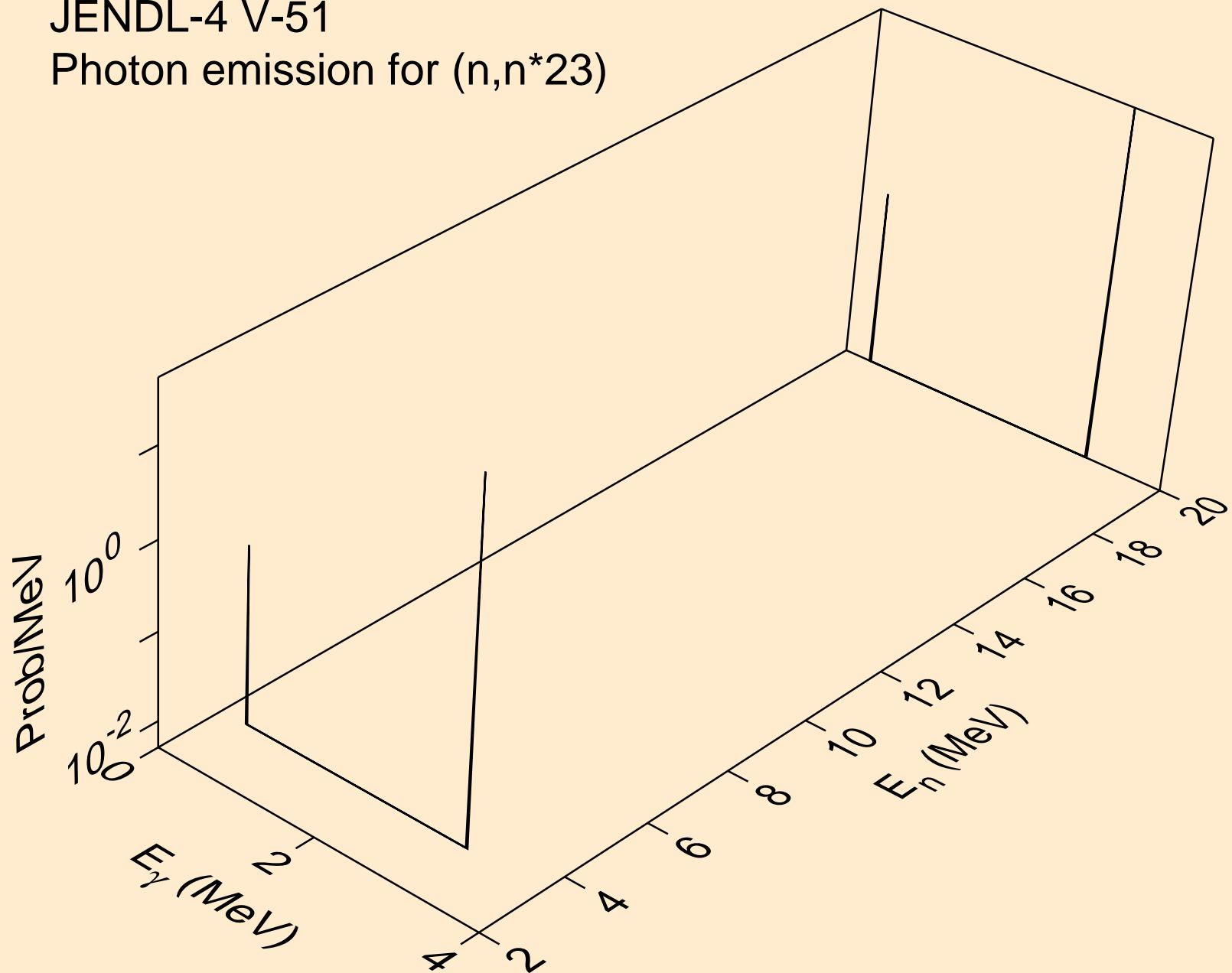
JENDL-4 V-51  
Photon emission for (n,n\*21)



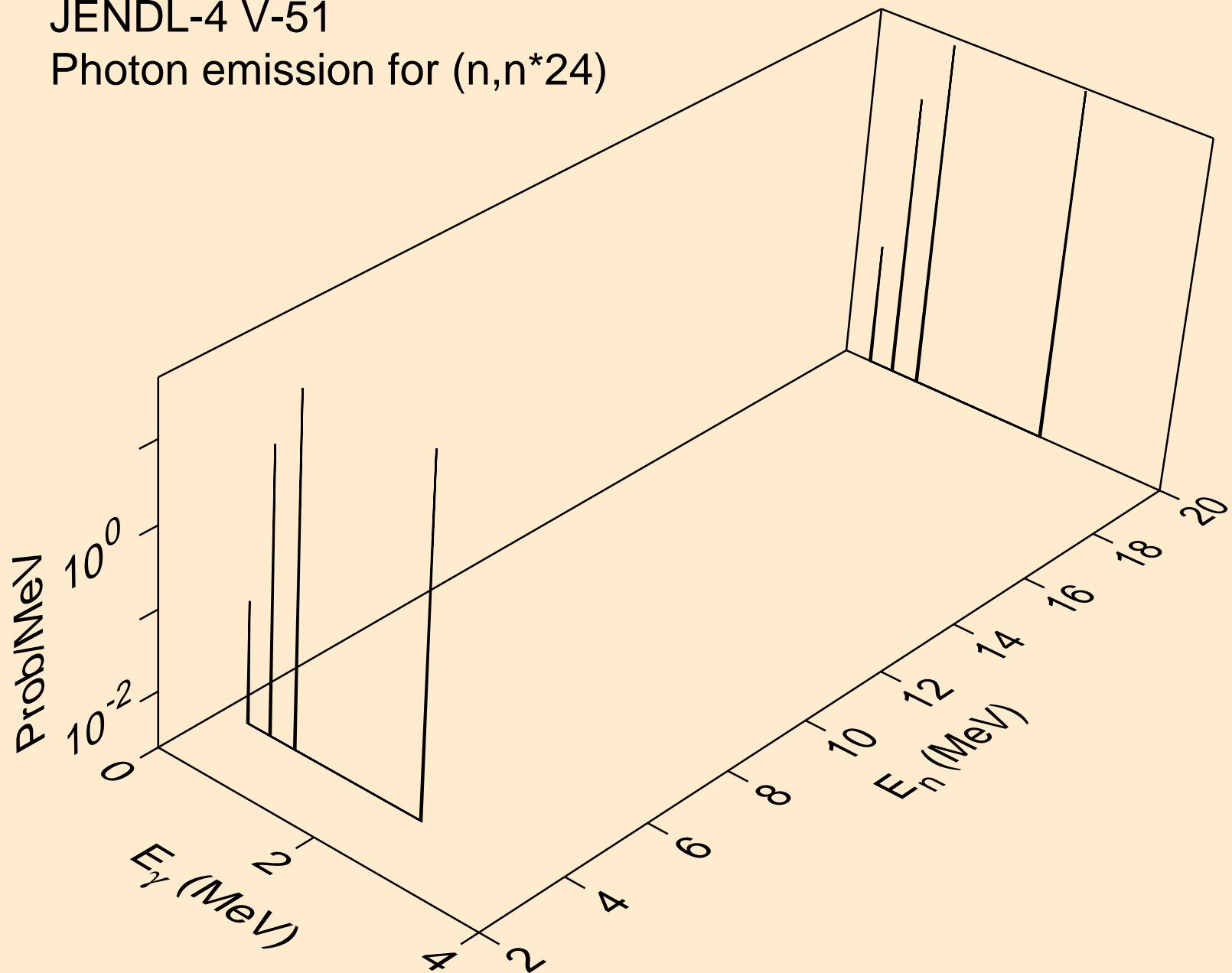
JENDL-4 V-51  
Photon emission for ( $n, n^* 22$ )



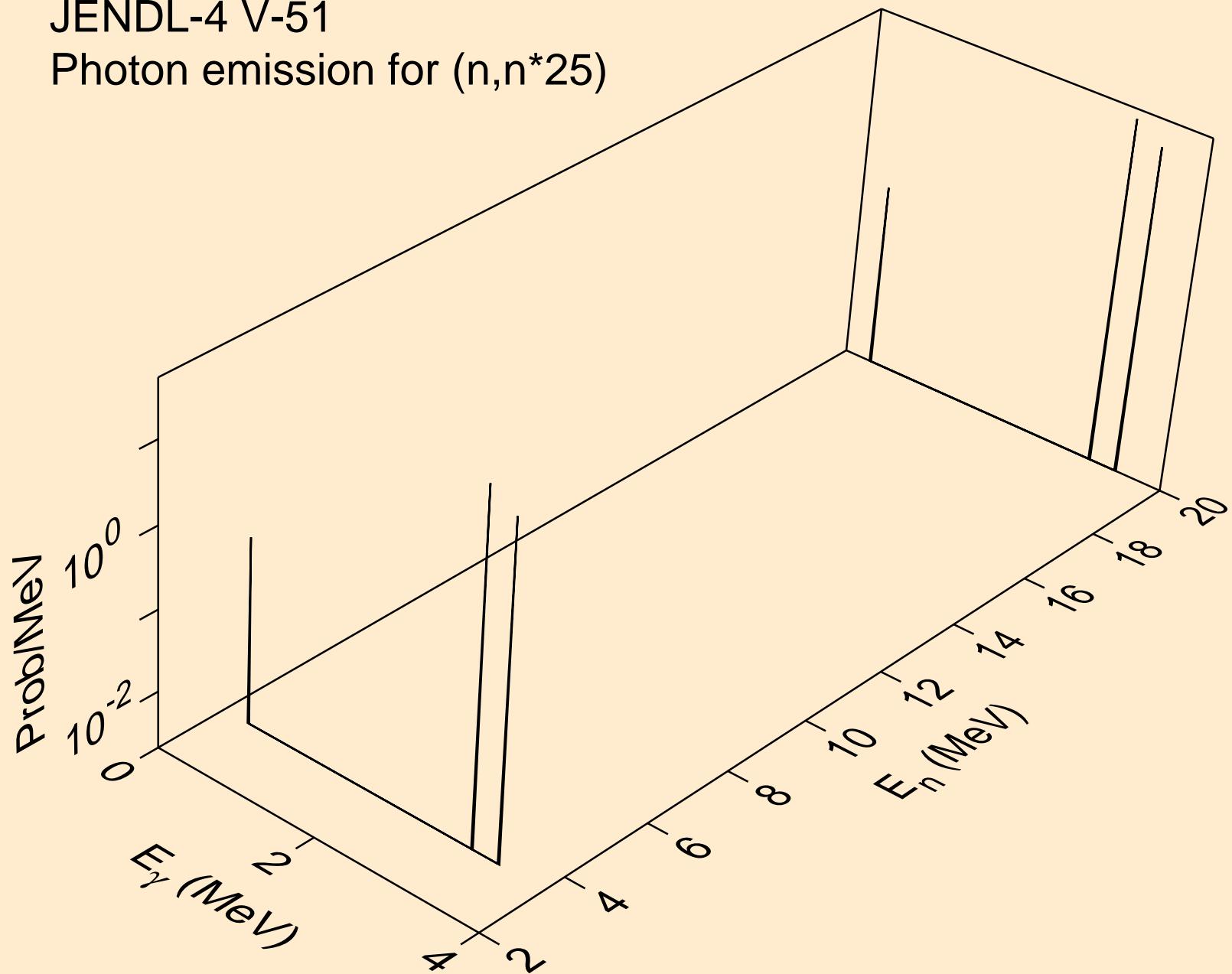
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Photon emission for ( $n, n^* 23$ )



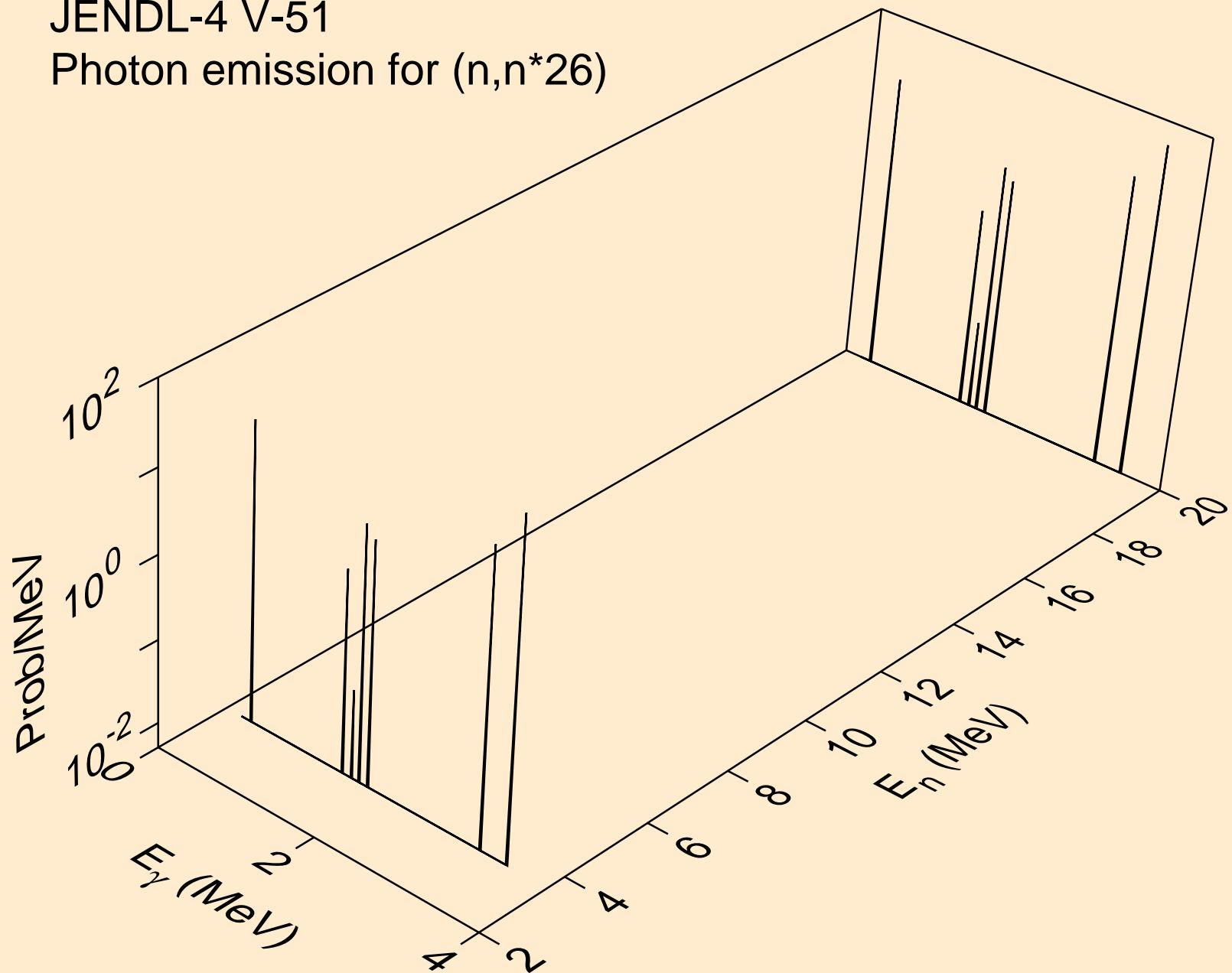
JENDL-4 V-51  
Photon emission for ( $n, n^* 24$ )



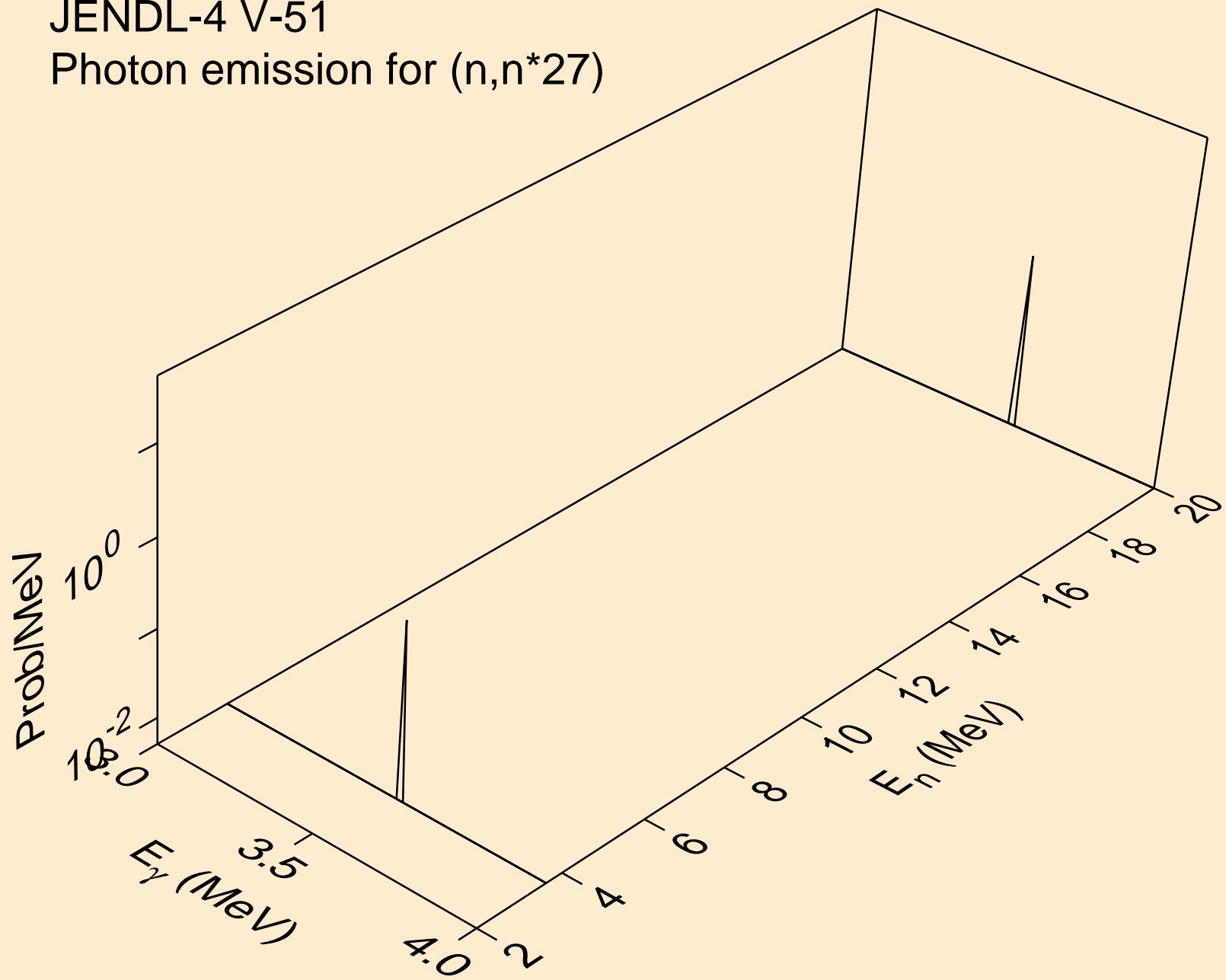
JENDL-4 V-51  
Photon emission for ( $n, n^*$ )25



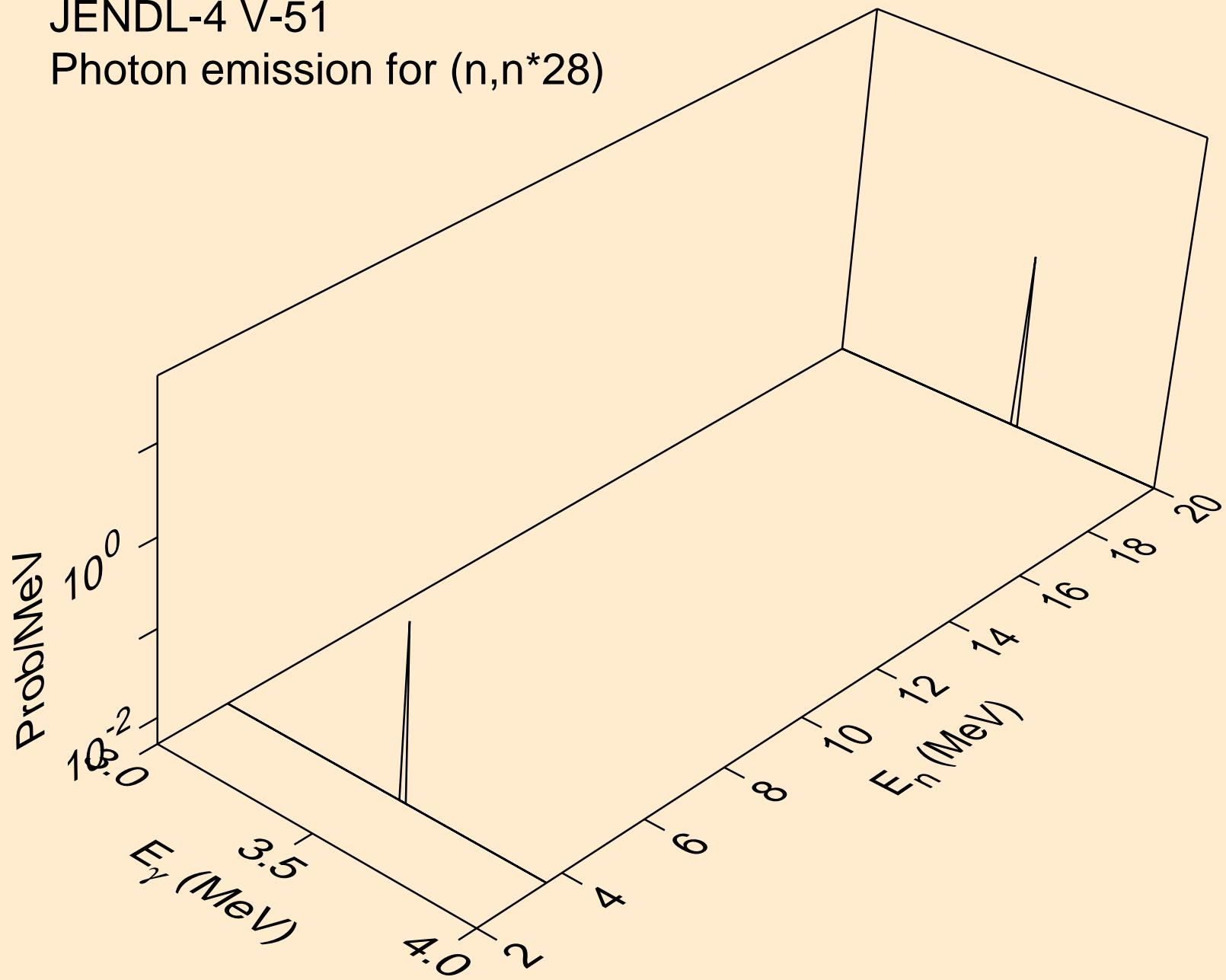
JENDL-4 V-51  
Photon emission for ( $n, n^* 26$ )



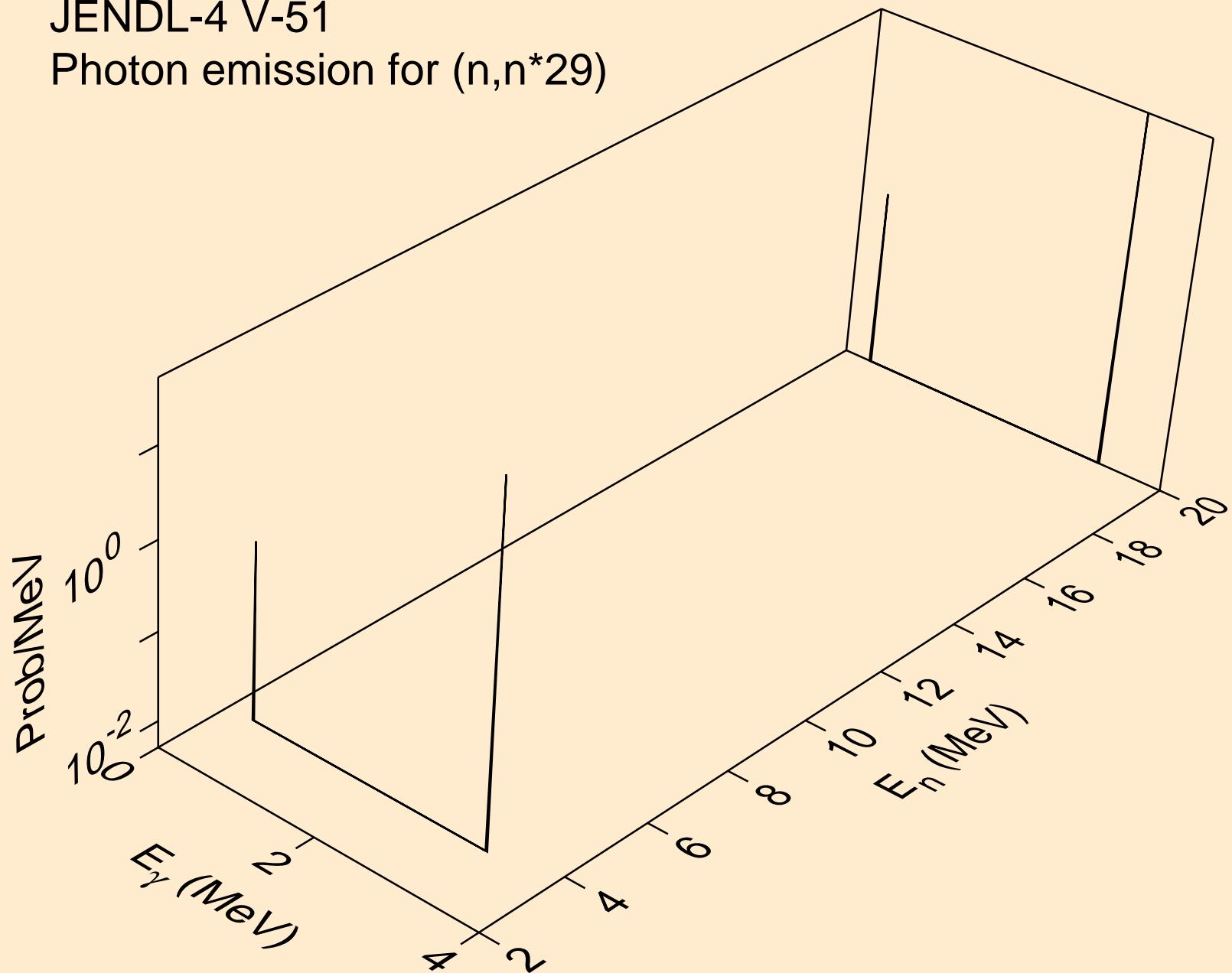
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Photon emission for ( $n, n^* 27$ )



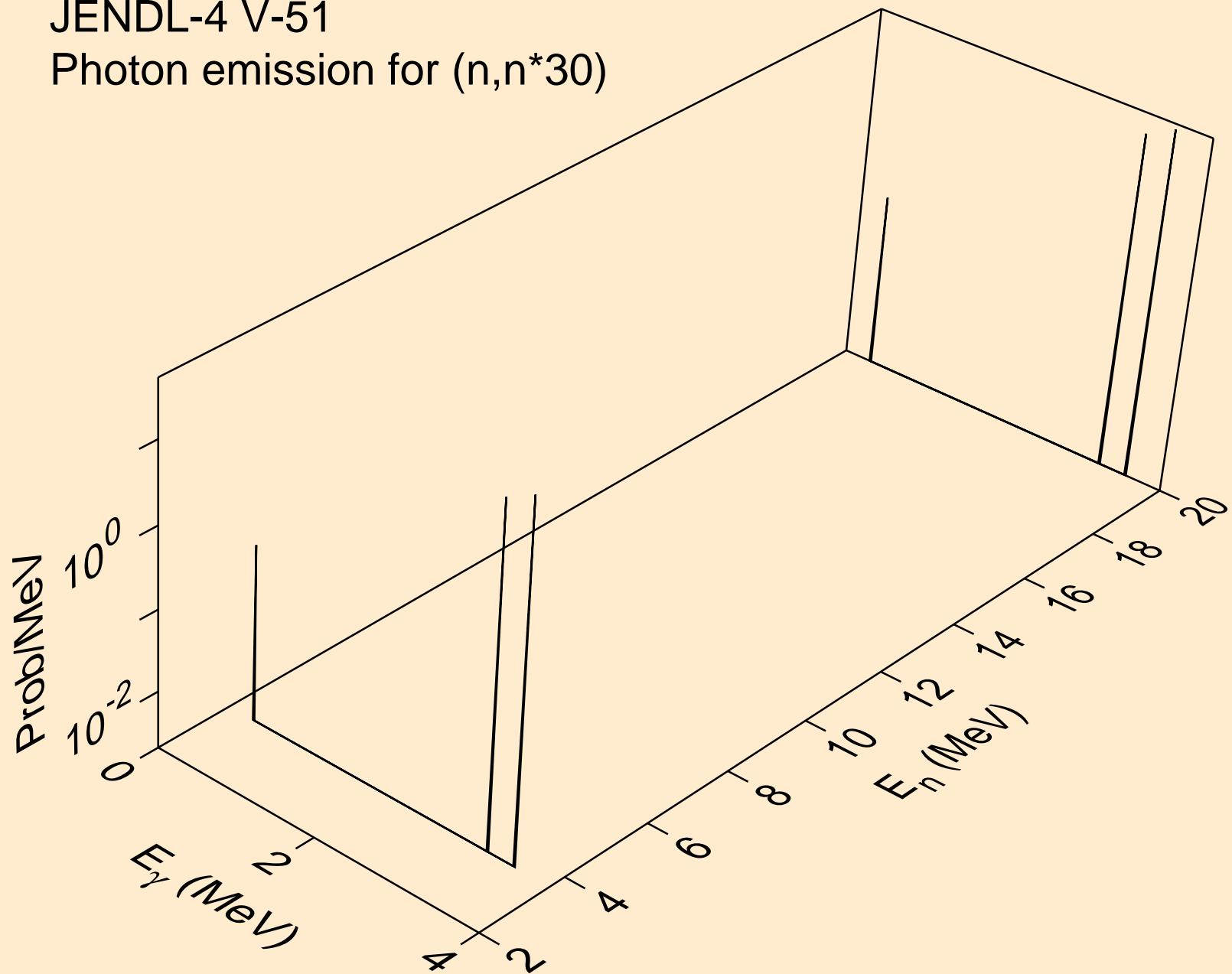
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Photon emission for ( $n, n^* 28$ )



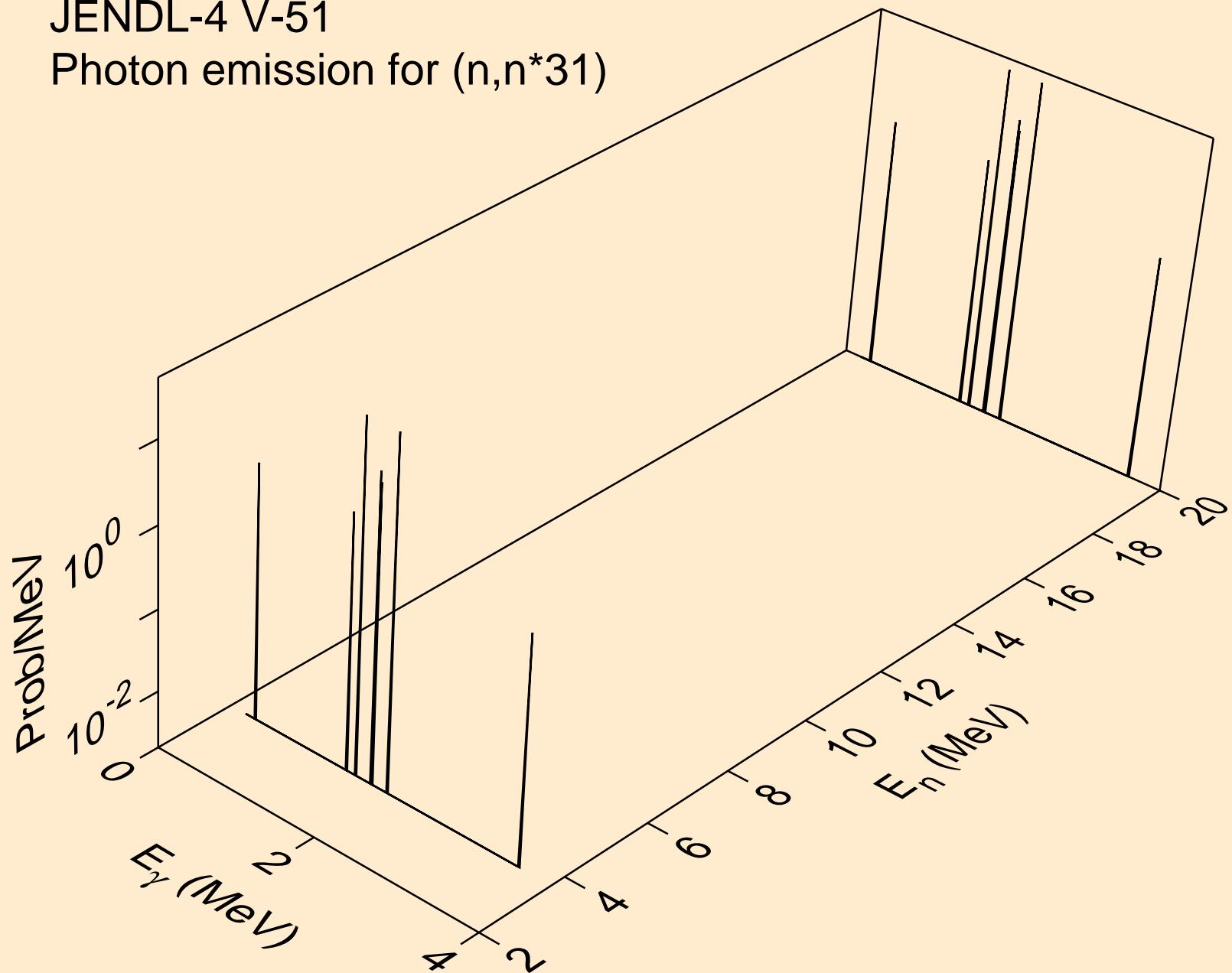
JENDL-4 V-51  
Photon emission for ( $n, n^* 29$ )



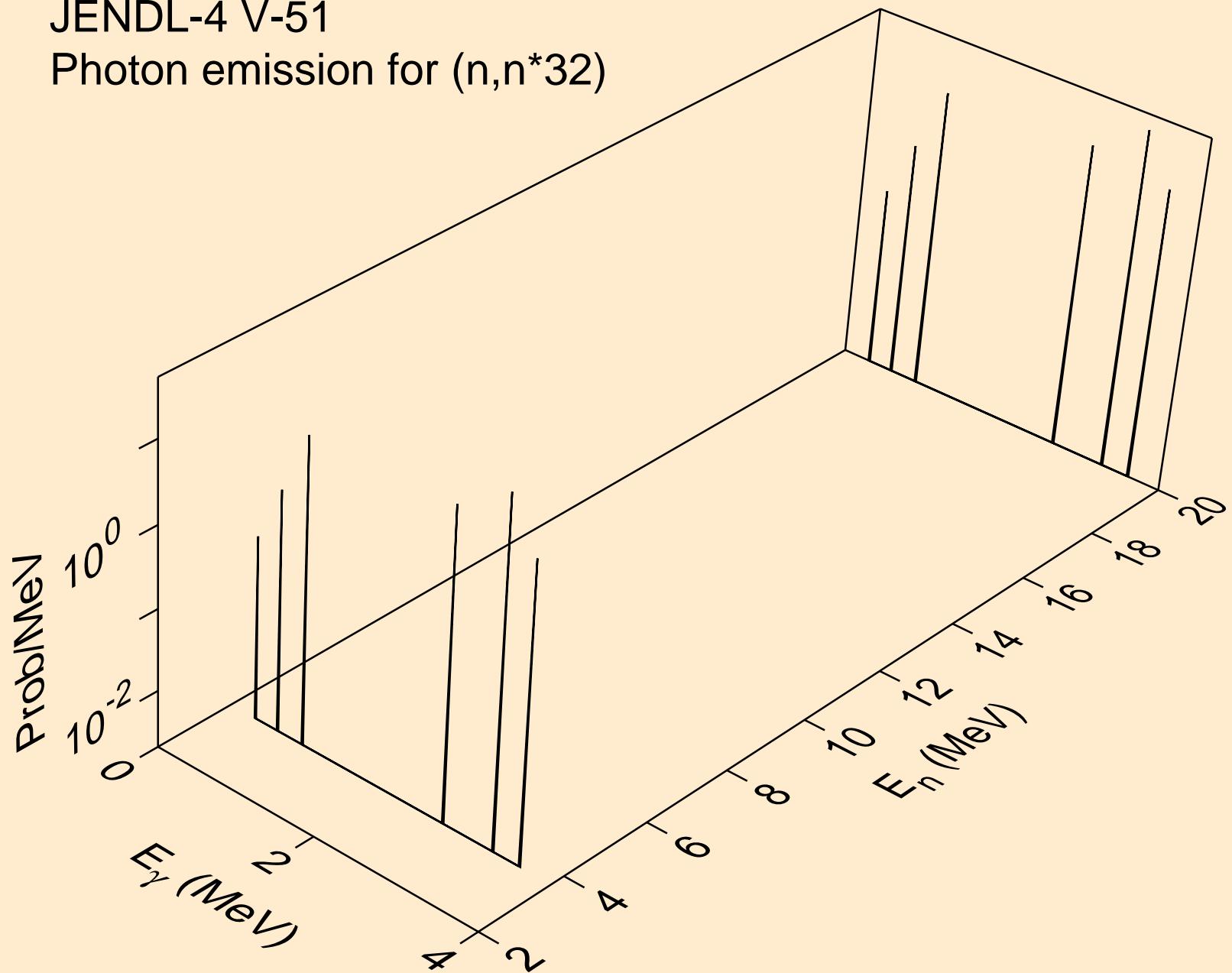
JENDL-4 V-51  
Photon emission for ( $n, n^*$ )30



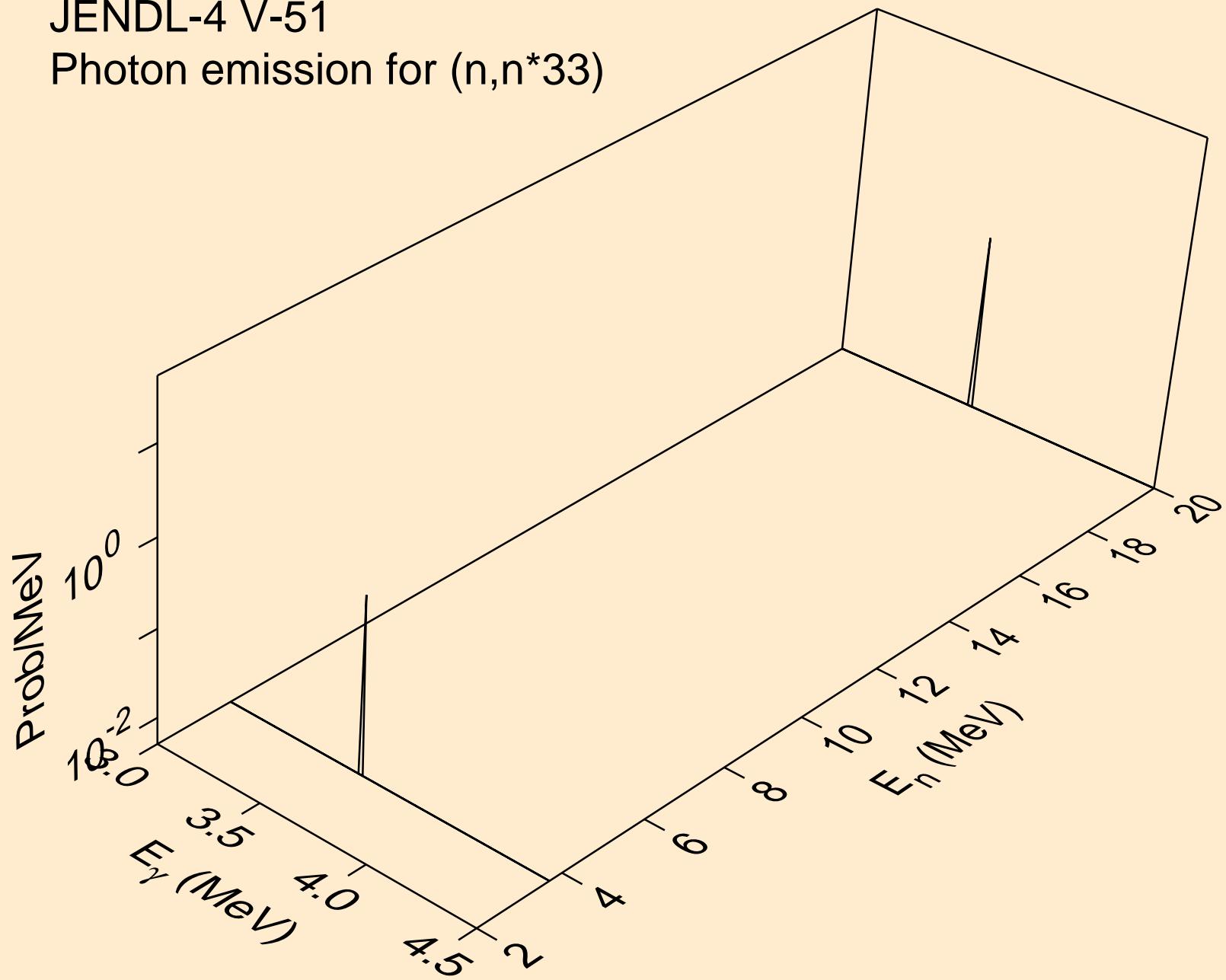
JENDL-4 V-51  
Photon emission for ( $n, n^* 31$ )



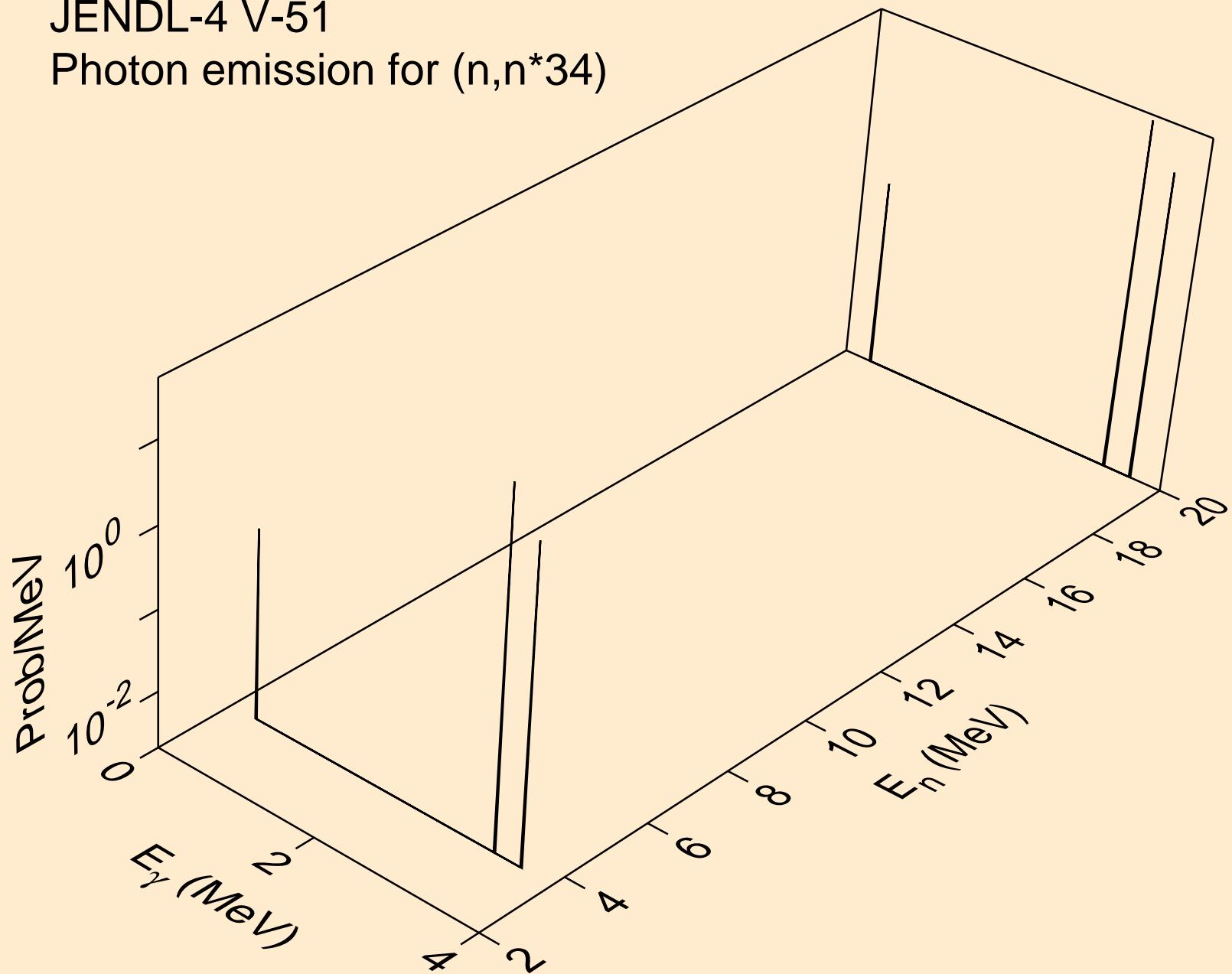
JENDL-4 V-51  
Photon emission for (n,n\*32)



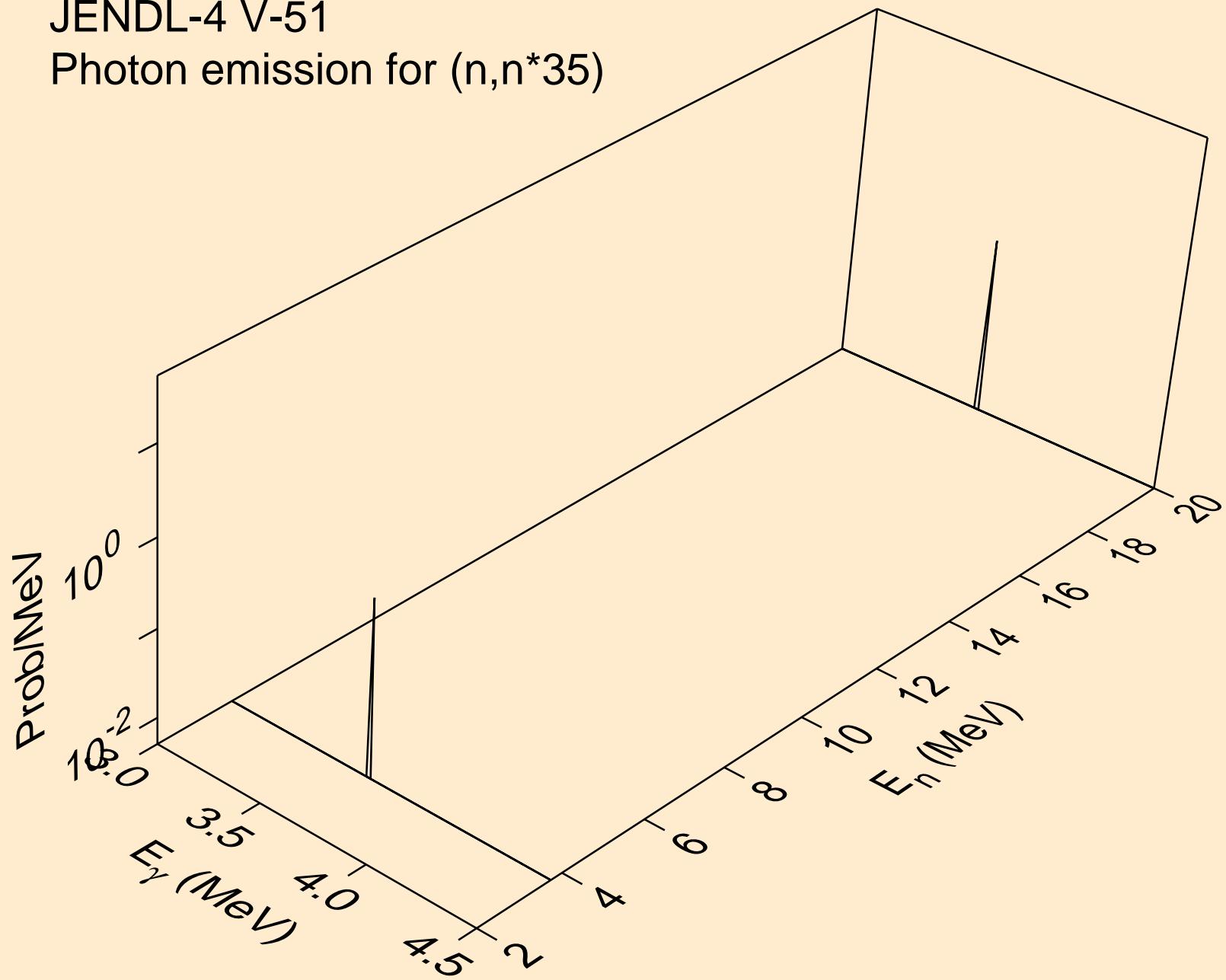
JENDL-4 V-51  
Photon emission for ( $n, n^* 33$ )



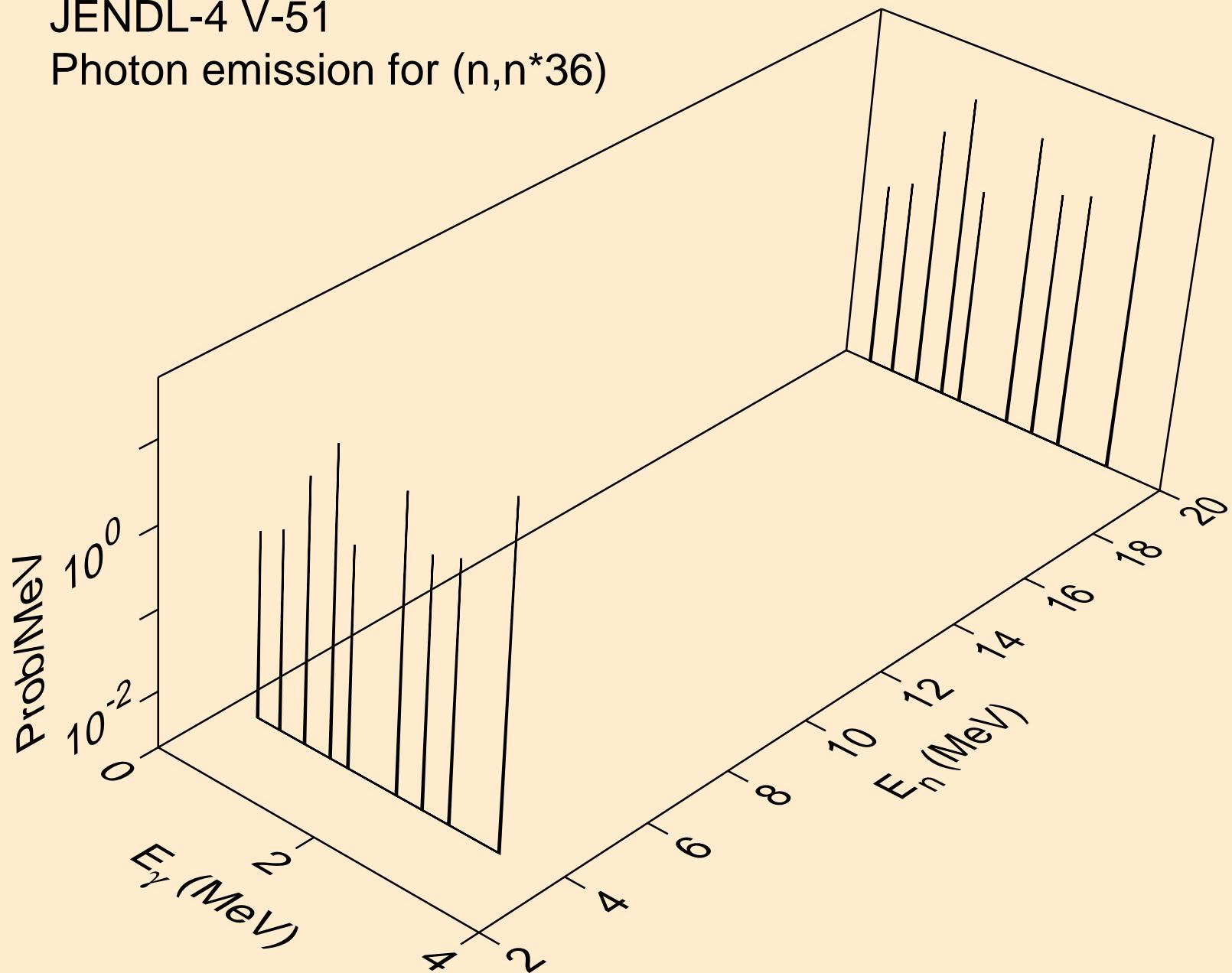
JENDL-4 V-51  
Photon emission for ( $n, n^* 34$ )



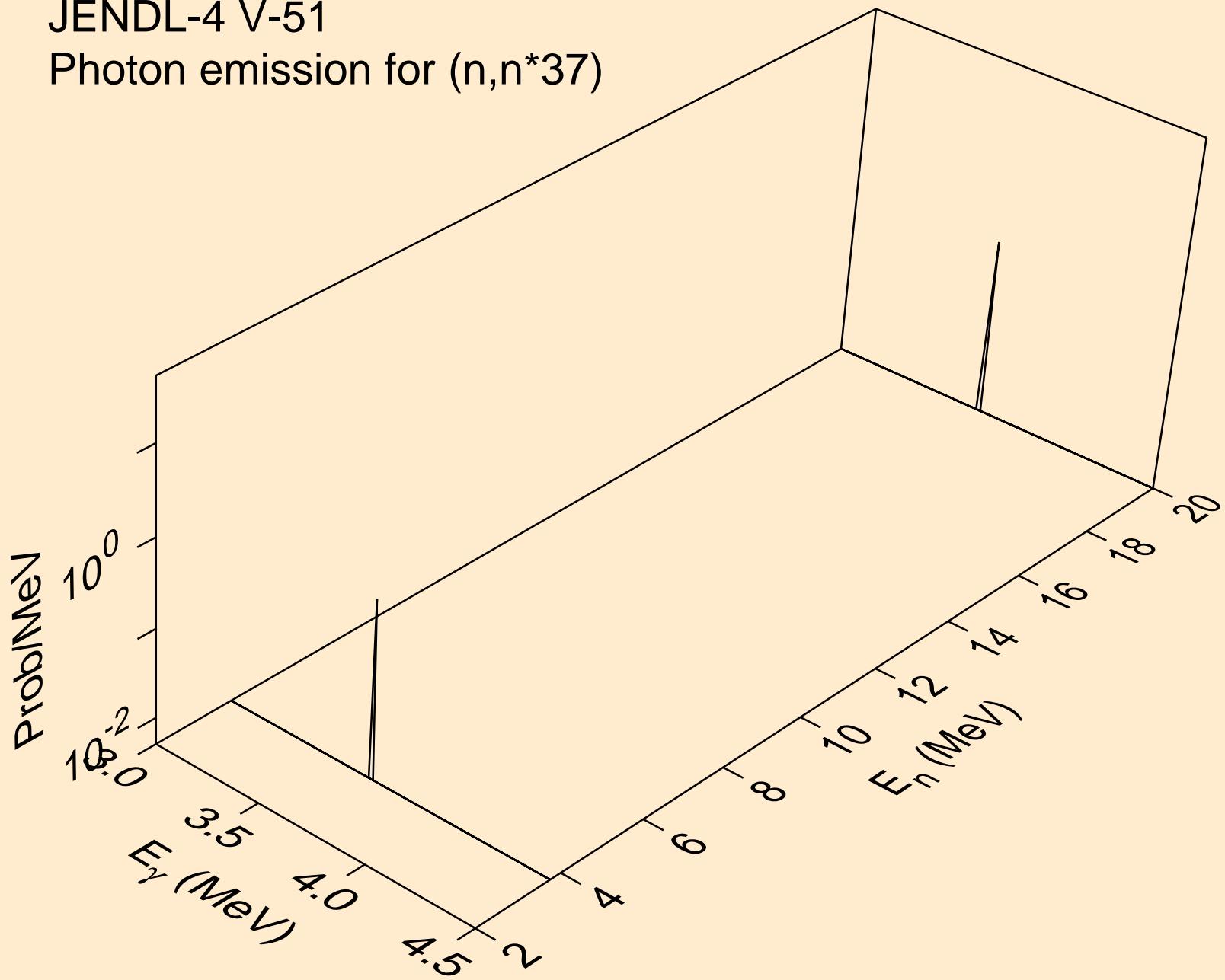
JENDL-4 V-51  
Photon emission for ( $n, n^*$ )<sup>35</sup>



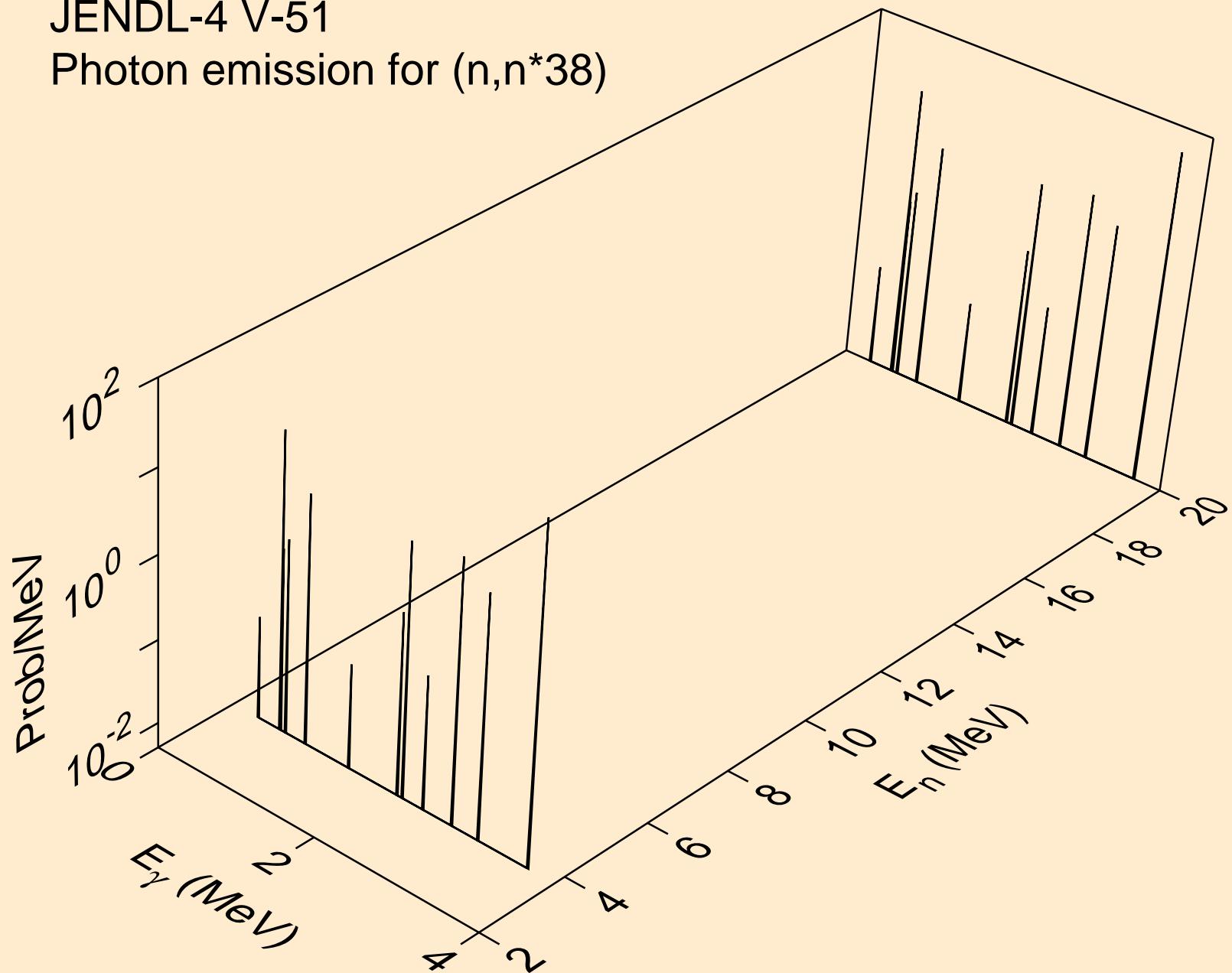
JENDL-4 V-51  
Photon emission for ( $n, n^*$ )36



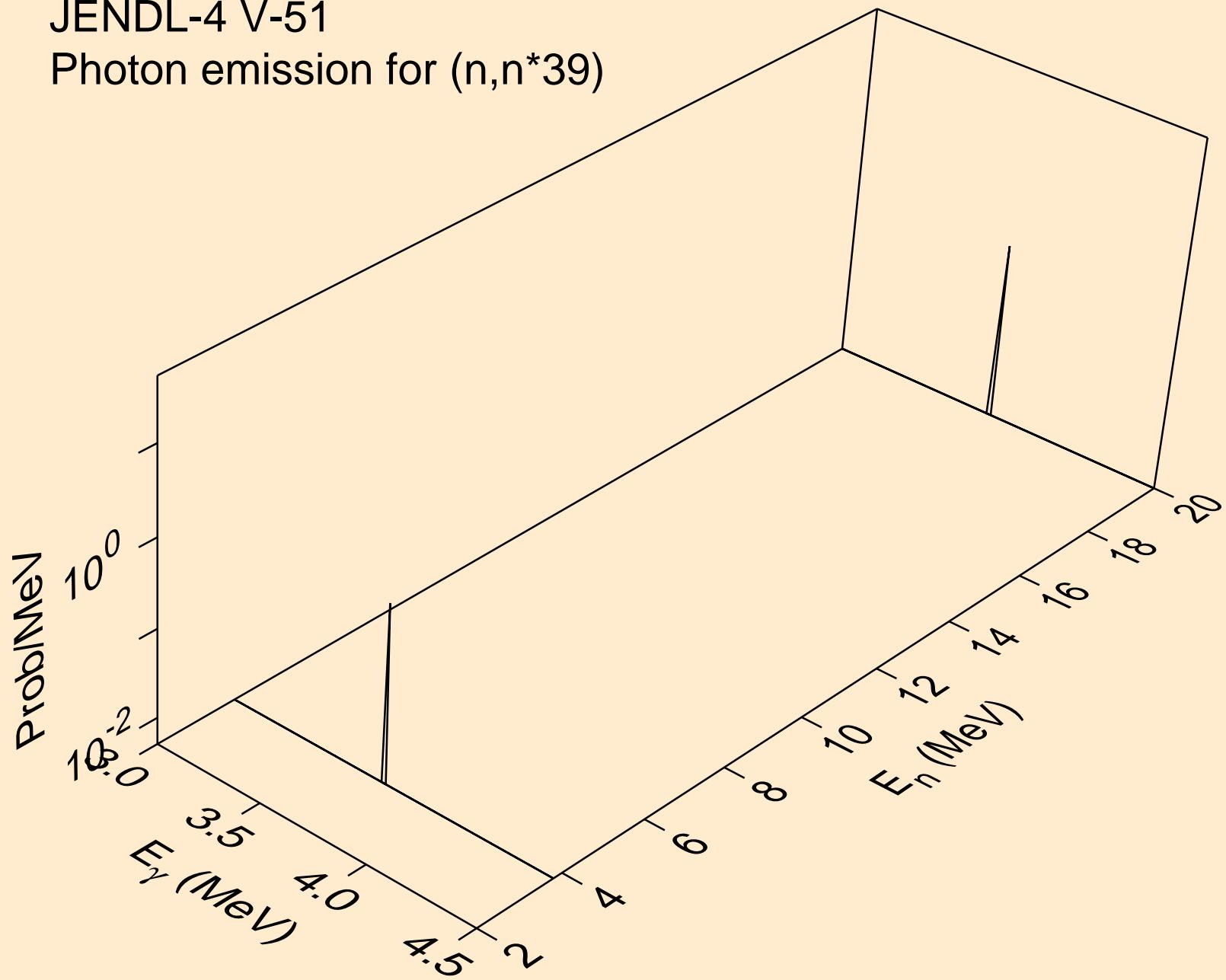
JENDL-4 V-51  
Photon emission for ( $n, n^* 37$ )



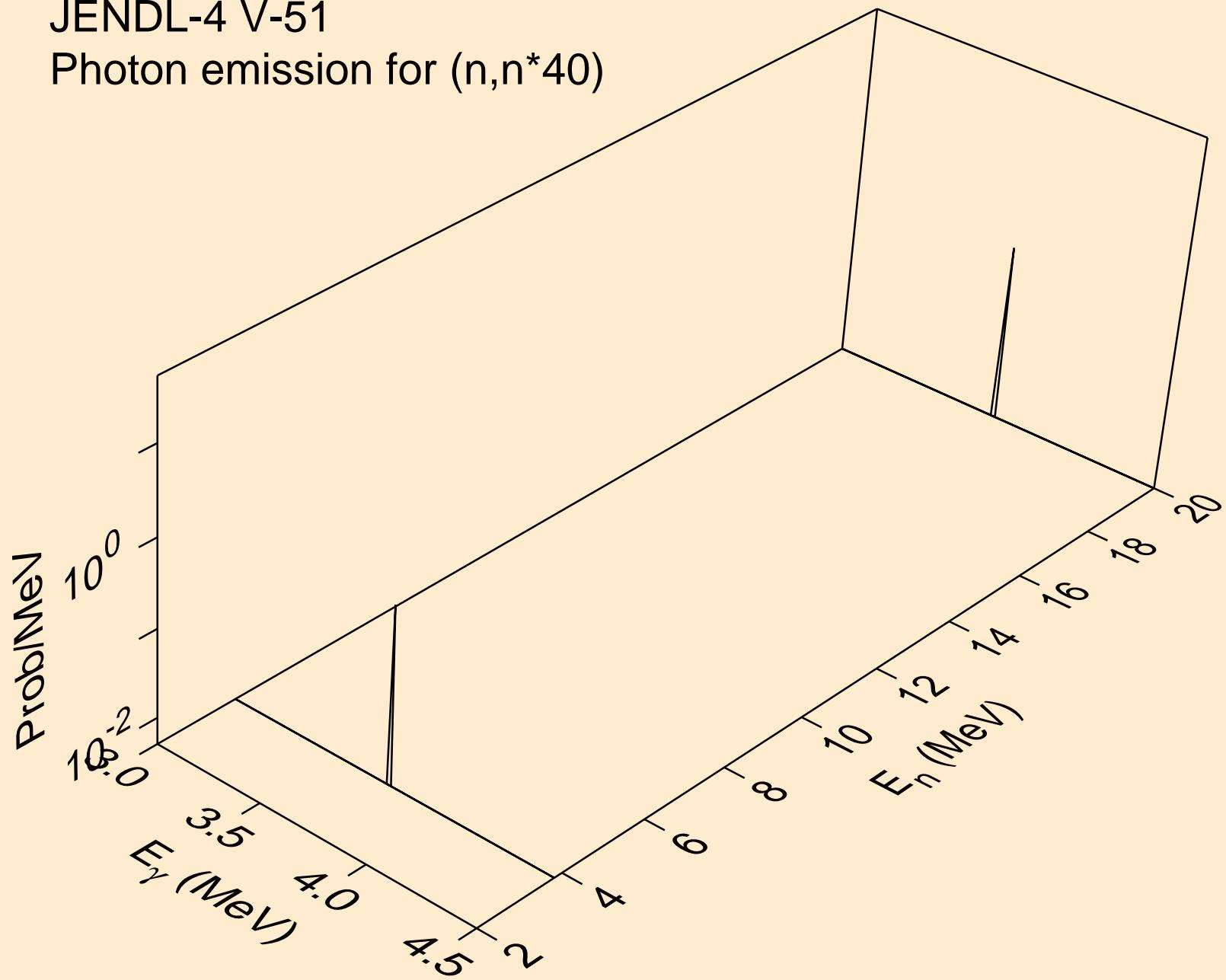
JENDL-4 V-51  
Photon emission for ( $n, n^*$ )38



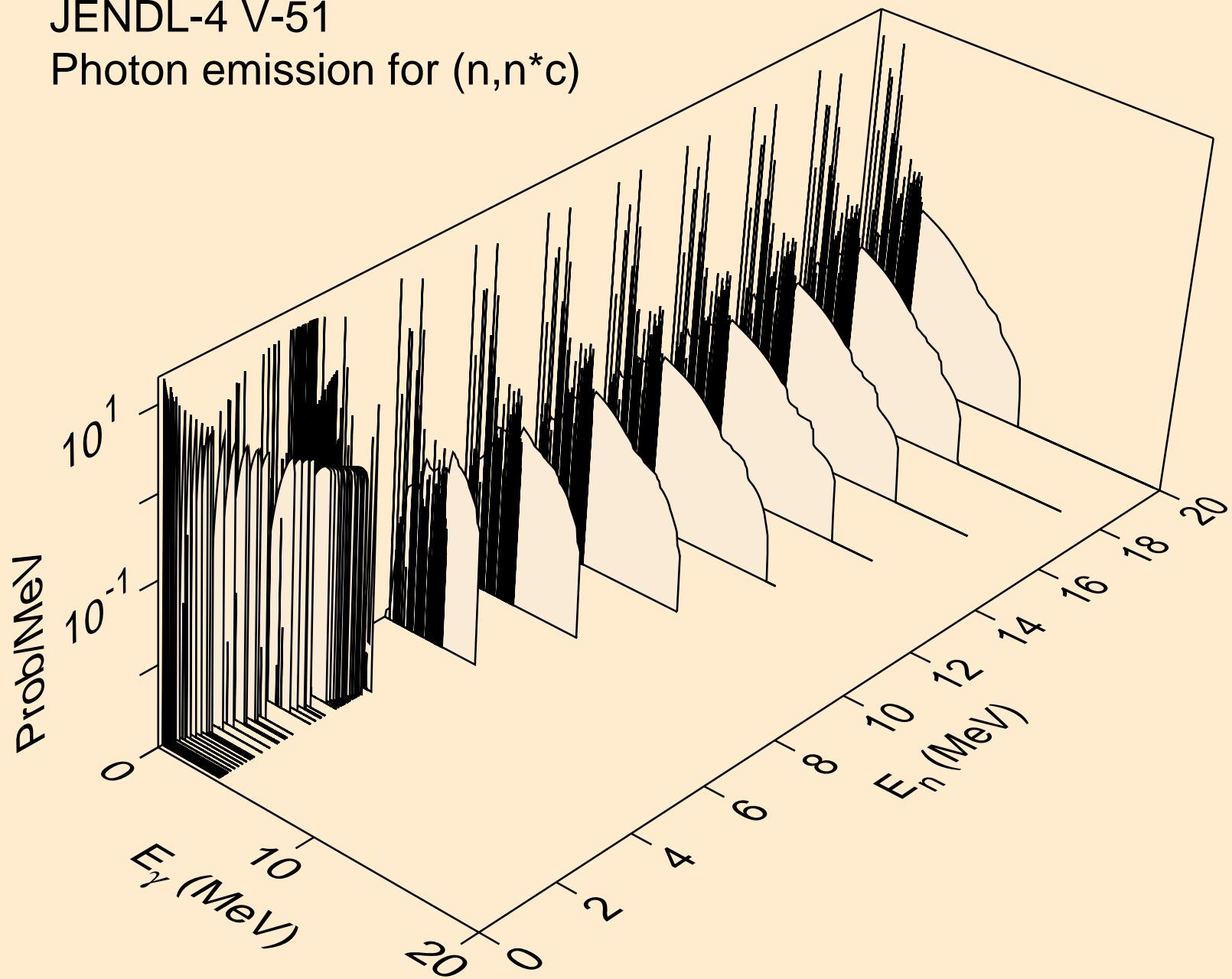
JENDL-4 V-51  
Photon emission for ( $n, n^* 39$ )



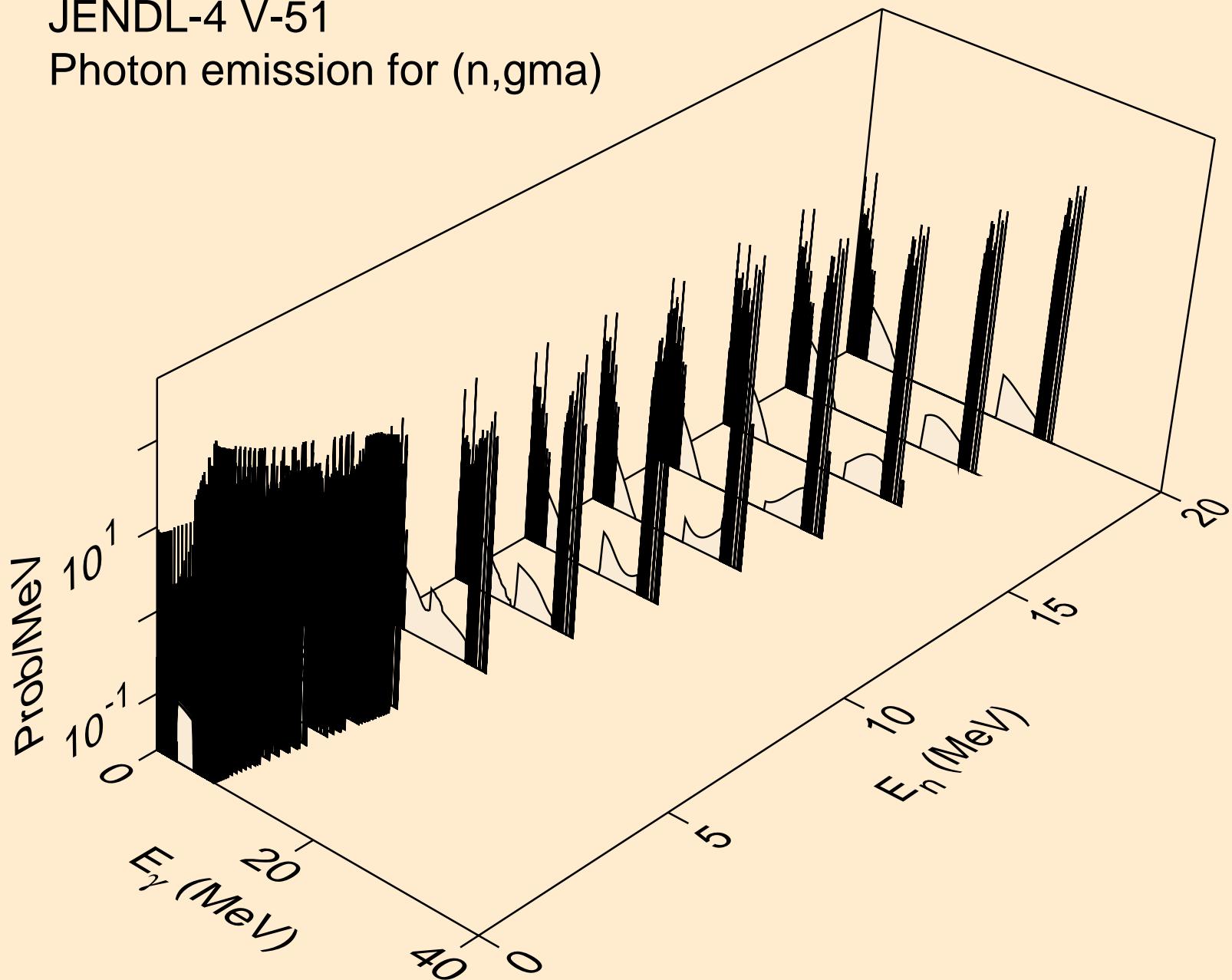
JENDL-4 V-51  
Photon emission for ( $n, n^*$ )40



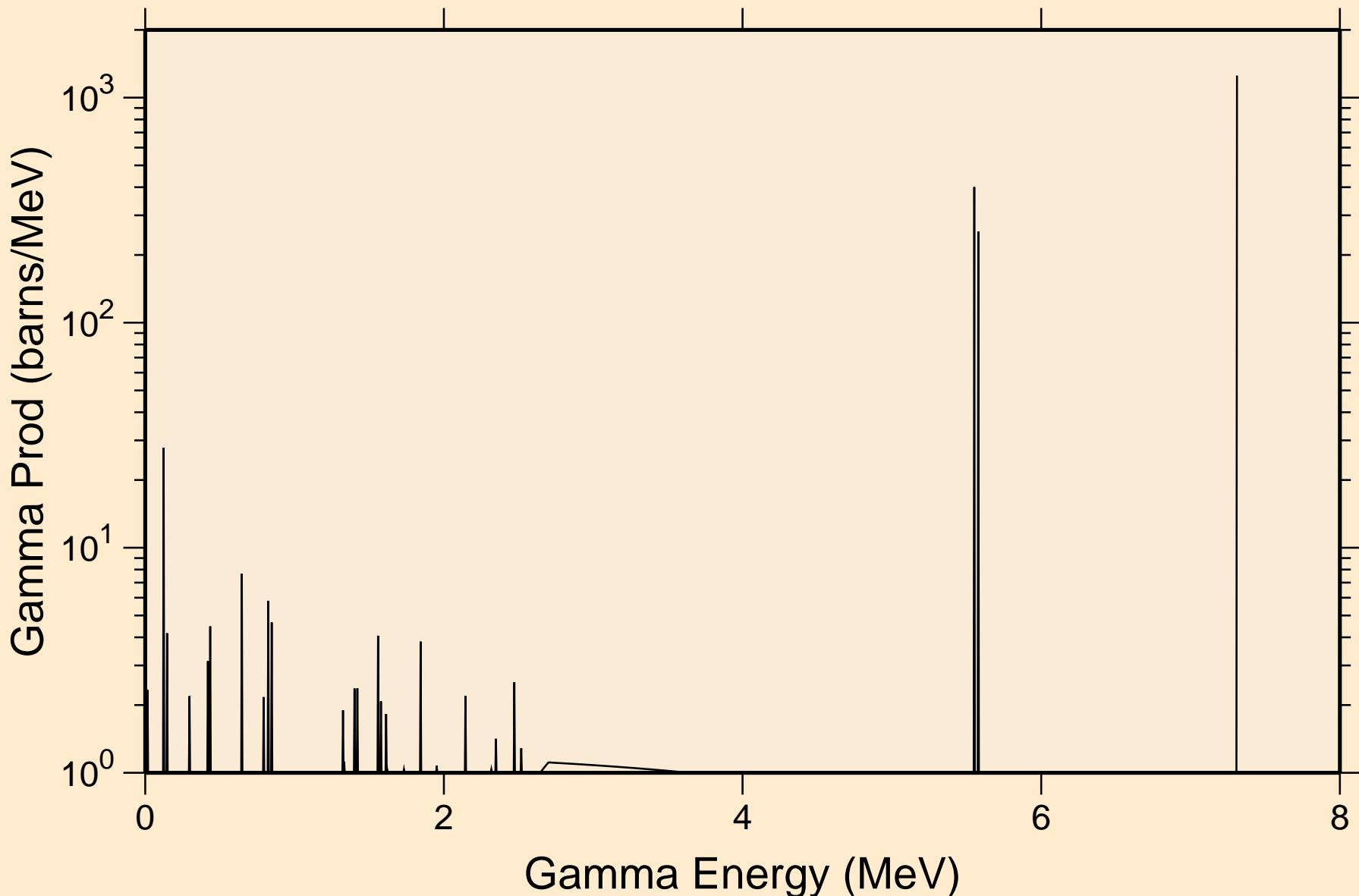
JENDL-4 V-51  
Photon emission for  $(n, n^* c)$



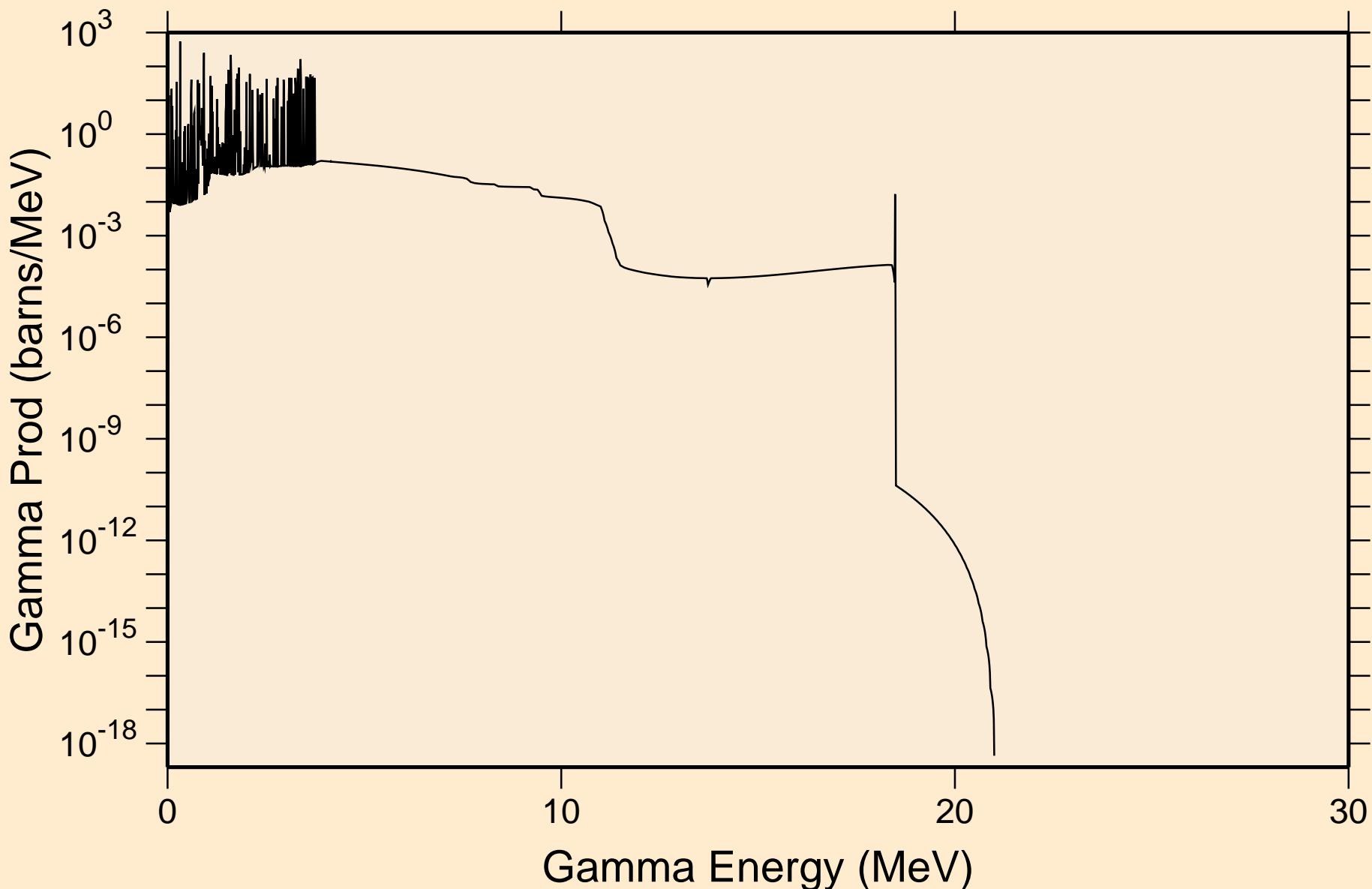
JENDL-4 V-51  
Photon emission for (n,gma)



JENDL-4 V-51  
thermal capture photon spectrum

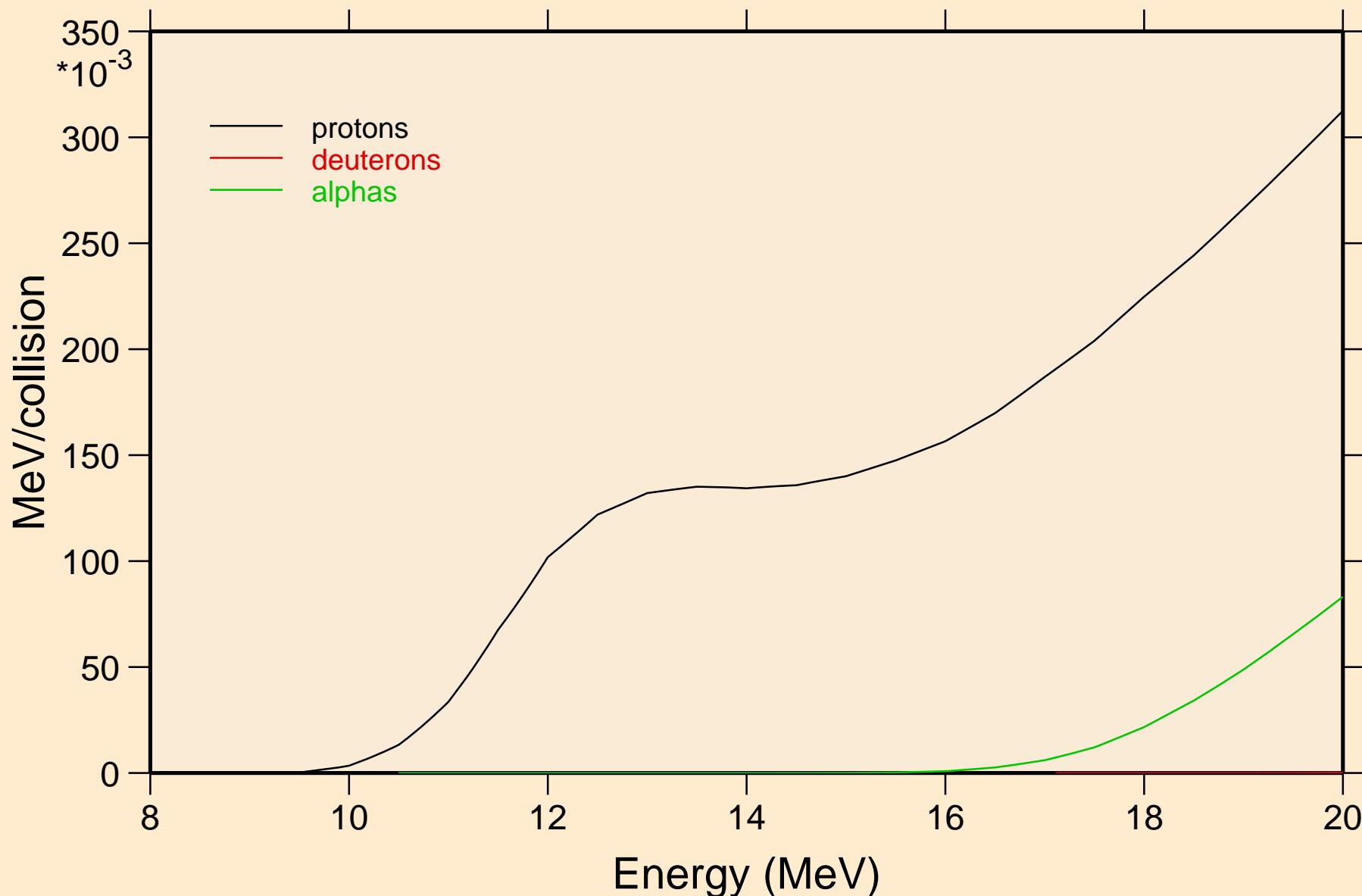


JENDL-4 V-51  
14 MeV photon spectrum

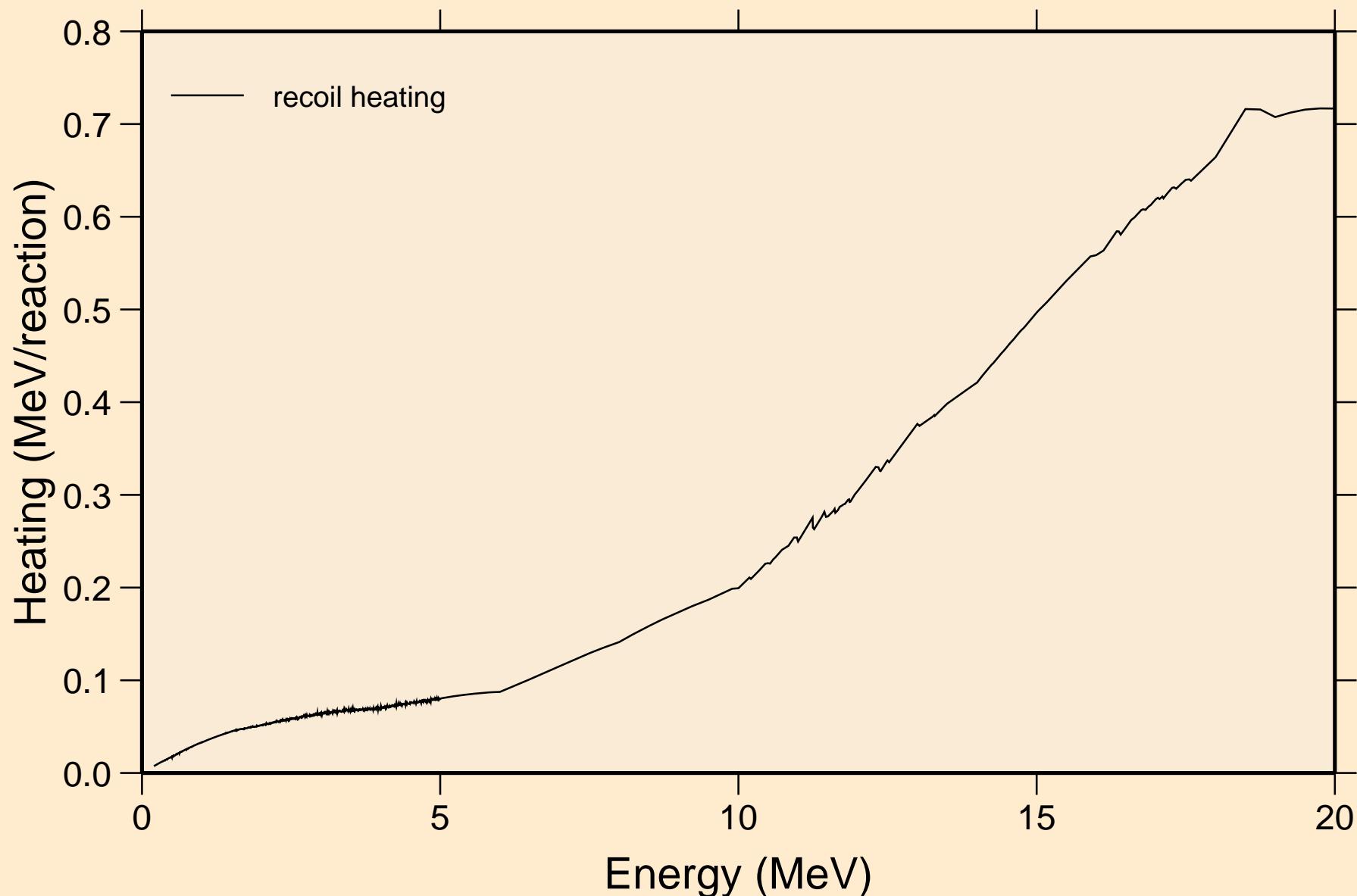


# JENDL-4 V-51

## Particle heating contributions

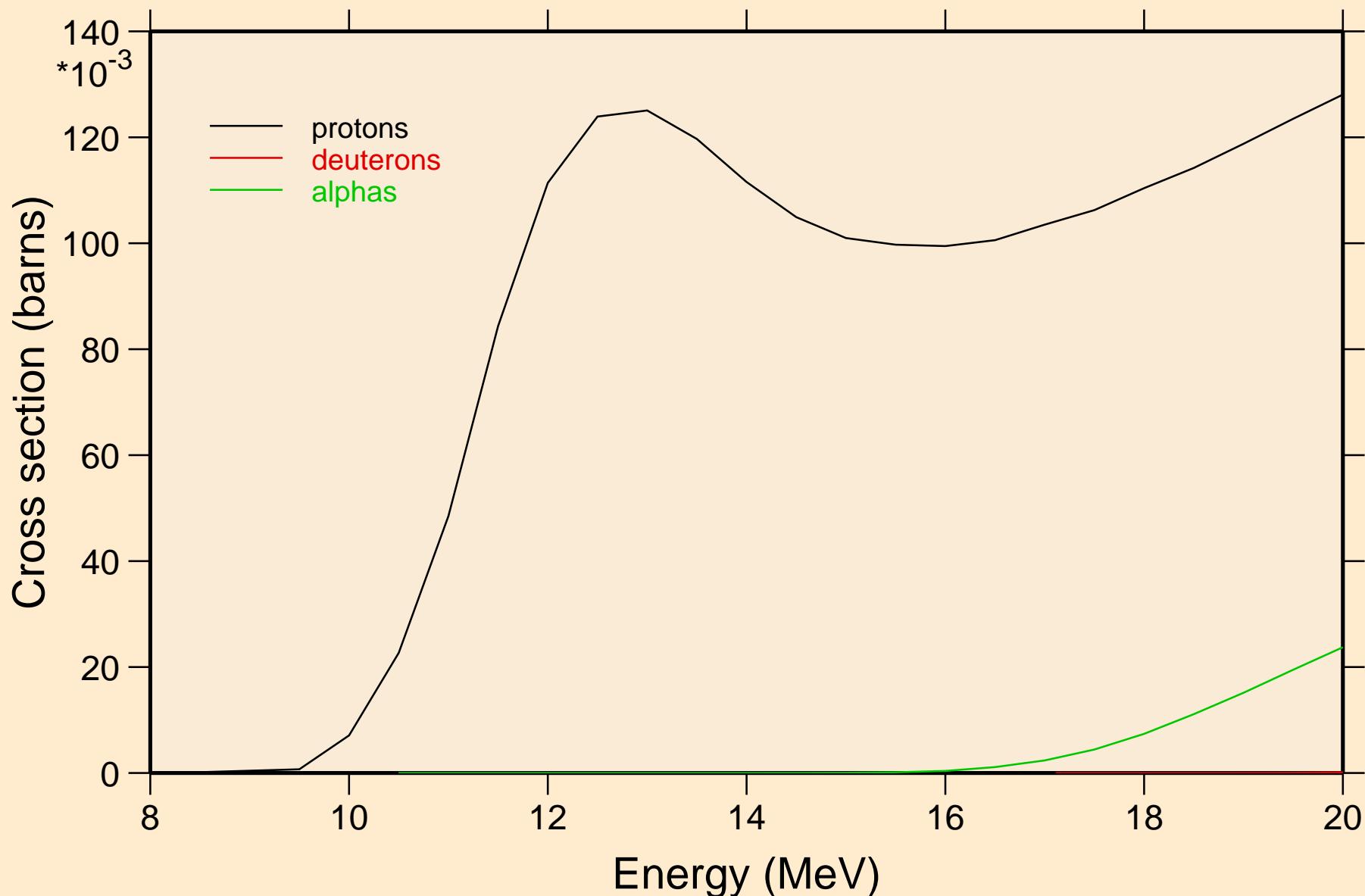


JENDL-4 V-51  
Recoil Heating

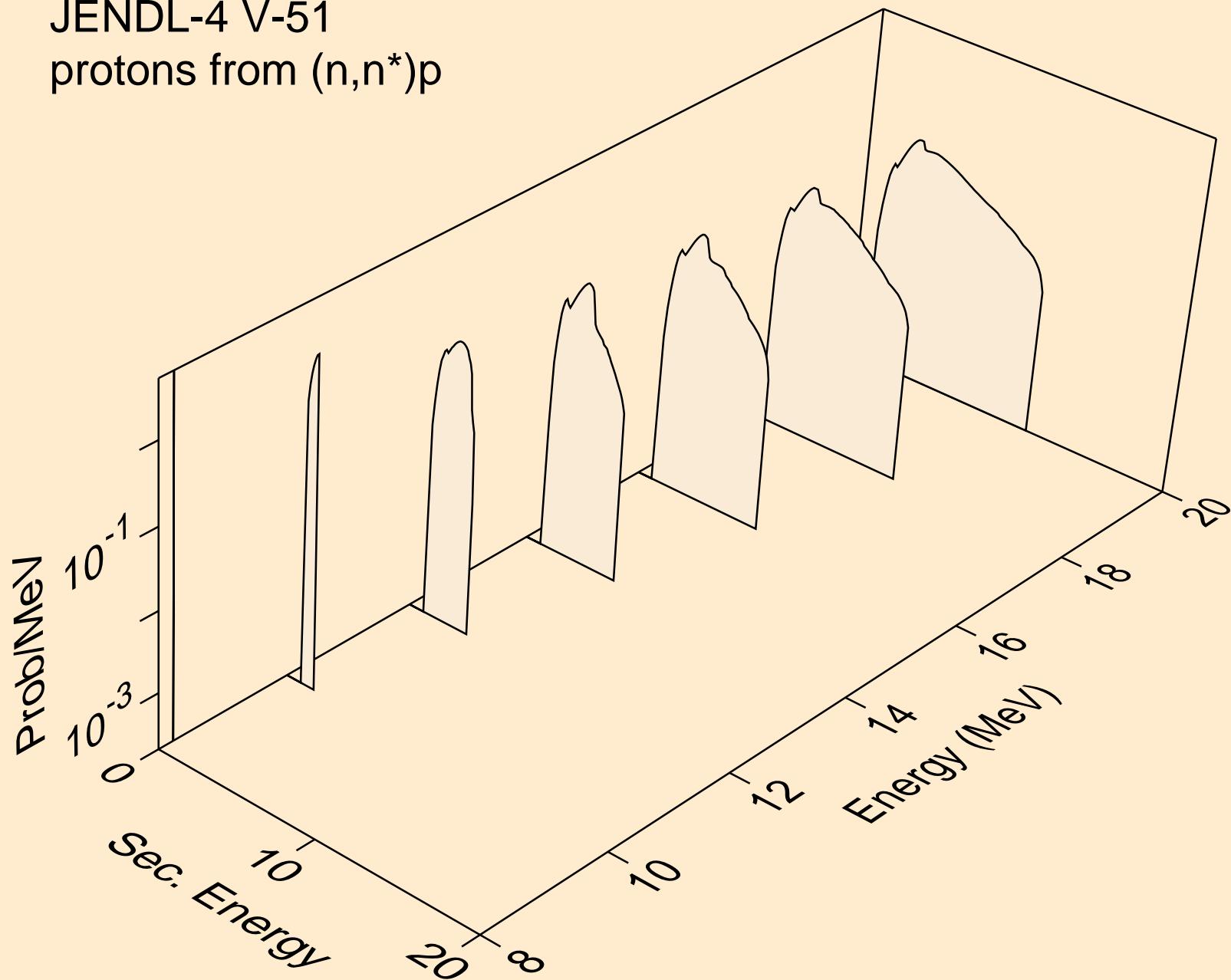


# JENDL-4 V-51

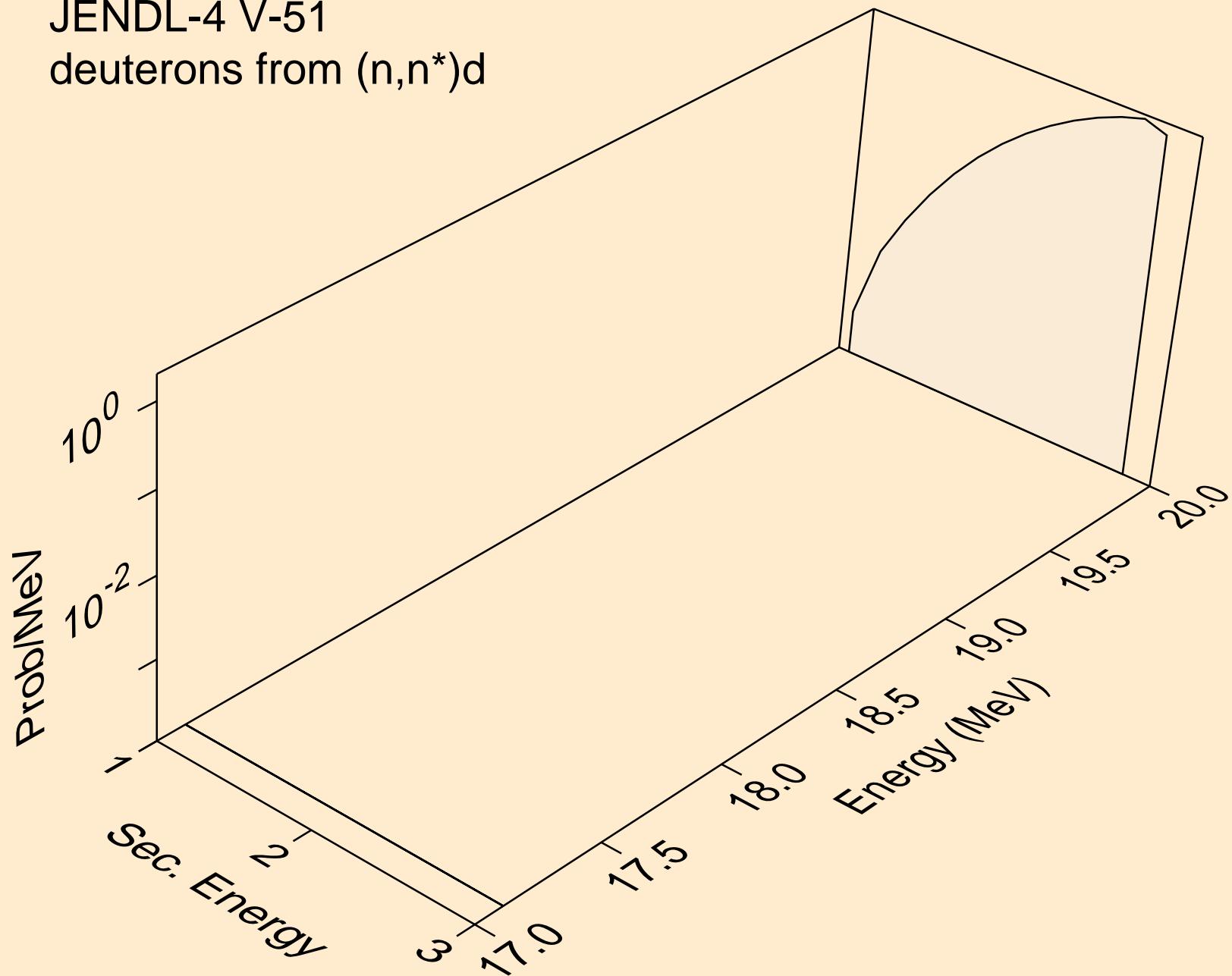
## Particle production cross sections



JENDL-4 V-51  
protons from  $(n,n^*)p$



JENDL-4 V-51  
deuterons from  $(n,n^*)d$



JENDL-4 V-51  
alphas from  $(n,n^*)a$

